San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 0 3 2011

Peggy Shue
Aera Energy LLC
PO Box 11164
Bakersfield, CA 93389-1164

Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-1548
Project # S-1055283

Dear Mr. Shue:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its light oil producer at SW/4 Section 04, T27S. R21 E (Lost Hill One - Light Oil Westem), Kem County, CA, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

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

Sincerely,

David Warner
Director of Permit Services

Attachments
C: Thom Maslowski, 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)
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AIR POLLUTION CONTROL DISTRICT

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NOV 0 3 2011

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

Re: Notice of Preliminary Decision – Title V Permit Renewal
District Facility # S-1548
Project # S-1055283

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its light oil producer at SW/4 Section 04, T27S. R21 E (Lost Hill One - Light Oil Westem), Kem County, CA, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

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

Sincerely,

David Warner
Director of Permit Services

Attachments
C: Thom Maslowski, Permit Services Engineer

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AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 0 3 2011

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

Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-1548
Project # S-1055283

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its light oil producer at SW/4 Section 04, T27S. R21 E (Lost Hill One - Light Oil Westem), Kem County, CA, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

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

Sincerely,

David Warner
Director of Permit Services

Attachments
C: Thom Maslowski, Permit Services Engineer

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Executive Director/Air Pollution Control Officer

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Bakersfield Californian

NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED RENEWAL OF
THE FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Aera Energy LLC for its light oil producer at SW/4 Section 04, T27S. R21 E (Lost Hill One - Light Oil Westem), Kem County, CA, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1055283, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT

Title V Permit Renewal Evaluation
Aera Energy LLC
S-1548

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TITLE V PERMIT RENEWAL EVALUATION

Light Oil Production Operation

Engineer: Thom Maslowski
Date: October 14, 2011

Facility Number: S-1548
Facility Name: Aera Energy LLC
Mailing Address: P O Box 11164
Bakersfield, CA 93389-1164

Contact Name: Peggy Shue
Phone: (661) 665-5689

Responsible Official: B.J. Biggs
Title: Operations Vice President

Project # : S-1055283
Deemed Complete: June 6, 2006

I. PROPOSAL

Aera Energy LLC was issued a Title V permit on October 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.

II. FACILITY LOCATION

Aera Energy LLC is located at Light Oil Western in Kern County.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is not proposing to use any model general permit templates as a part of this Title V renewal project.

V. SCOPE OF EPA AND PUBLIC REVIEW

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

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions
  (amended September 17, 1998 ⇒ amended August 8, 2011)
- District Rule 2201, New and Modified Stationary Source Review Rule
  (amended August 20, 1998 ⇒ amended April 21, 2011)
- District Rule 4101, Visible Emissions
  (amended December 17, 1992 ⇒ amended February 17, 2005)
- District Rule 4401, Steam-Enhanced Crude Oil Production Well Vents
  (amended January 18, 1998 ⇒ amended June 16, 2011)
- District Rule 4601, Architectural Coatings
  (amended October 31, 2001⇒ amended December 17, 2009)
- District Rule 4623, Storage of Organic Liquids
  (amended December 17, 1992 ⇒ amended May 19, 2005)
- 40 CFR Part 60, Subpart A, General Provisions
- 40 CFR Part 60, Subparts K, Ka, Kb – Standards of Performance for Storage Vessels for Volatile Organic Liquid

B. Rules Removed

- District Rule 4403, Components Serving Light Crude Oil or Gases at Light Crude Oil and Gas Production Facilities and Components at Natural Gas Processing Facilities *(amended April 20, 2005)*

This rules requirements were no longer applicable after April 20, 2006 and were replaced by District Rule 4409.

- District Rule 4701, Internal Combustion Engines
(amended August 21, 2003)

- District Rules 8020, 8030, and 8060, Fugitive Dust (PM_{10}) Emissions
(amended April 25, 1996)

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

C. Rules Added

- District Rule 4311, Flares *(adopted June 20, 2002 ⇒ Amended June 18, 2009)*

- District Rule 4409, Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities and Natural Gas Processing Facilities
(adopted April 20, 2005)

- District Rule 4702, Internal Combustion Engines – Phase 2
(adopted August 21, 2003 ⇒ amended August 18, 2011)

- District Rule 8011, General Requirements
(adopted November 15, 2001; amended August 19, 2004)

- 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)

- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

D. Rules Not Updated

- District Rule 1080, Stack Monitoring *(amended December 17,1992)*
- District Rule 1081, Source Sampling *(amended December 16,1993)*
- District Rule 1100, Equipment Breakdown (Non-SIP replacement for Kern County Rule 111) *(amended December 17, 1992)*
- District Rule 2010, Permits Required *(amended December 17, 1992)*
- District Rule 2031, Transfer of Permits *(amended December 17, 1992)*
- District Rule 2080, Conditional Approval *(amended December 17, 1992)*
- District Rule 2520, Federally Mandated Operating Permits *(adopted June 15, 1995 ⇒ amended June 21, 2001)*
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4301, Fuel Burning Equipment *(amended December 17, 1992)*
- District Rule 4801, Sulfur Compounds (Non-SIP replacement for Kern County Rule 108.1) *(amended December 17, 1992)*
- 40 CFR Part 61, Subpart M, National Emissions Standards for Asbestos
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM)
- 40 CFR Part 82, Subpart 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 Adopted

None

B. Rules Not Updated

- District Rule 4102, Nuisance *(amended December 17, 1992)*

For this facility, condition 41 of the facility-wide requirements S-1128-0-4 is based on the rule listed above and are not Federally Enforceable through Title V.

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.

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 affect on current permit requirements and will therefore not be addressed in this evaluation.

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 to the permits being renewed as a part of this project.

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

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

1. All Permits:

- Mapping or identification of specific permit conditions that have been updated due to the change in the reference sections of this Rule is

not necessary. Every District Rule 2520 section reference on each permit has been updated according to the table above.

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

District Rule 4101 – Visible Emissions

District Rule 4101 has been submitted to the EPA to replace SIP approved Rule 401 (all counties of the SJVUAPCD). EPA made a preliminary determination that District Rule 4101 is "more stringent" than the county versions previously referenced, per correspondence dated August 20, 1996.

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 the facility-wide requirements of S-1548-0-4 ensures compliance.

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 D 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.

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

Since the flare in unit S-1548-113-2 is only used as an emergency flare, it will not be subject to the requirements of these sections.

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

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.

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.

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.

Section 5.6 requires that open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section do not apply to Coanda effect flares.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this requirement. Permit units S-1548-144, -389 & -424 utilize Coanda effect flares and are therefore exempt from this section.

Section 5.7 requires ground-level enclosed flares to meet the emission standards listed in the table below.

Ground Level Enclosed Flare Emission Standards		
Type of Flare and Heat Release Rate in MMBtu/hr	VOC (lb/MMBtu)	NO_X (lb/MMBtu)
Without Steam-assist		
< 10 MMBtu	0.0051	0.0952
10 – 100 MMBtu	0.0027	0.1330
> 100 MMBtu	0.0013	0.5240
With Steam-assist		
All	0.14 as TOG	0.068

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this requirement. Permit units S-1548-144, -389 & -424 are not ground-level enclosed flares so this section does not apply.

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.

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

Compliance with the requirements in Section 5.0 of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1548-113-2	6-9
S-1548-144-38	32-36
S-1128-389-4	12-16
S-1128-424-3	11-15

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.

Compliance with the recordkeeping requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1548-113-2	10-12
S-1548-144-38	37-39
S-1128-389-4	17-19
S-1128-424-3	16-18

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, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this requirement.

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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this requirement.

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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this requirement.

Compliance with the reporting requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1548-144-38	40-42
S-1128-389-4	20-22
S-1128-424-3	19-21

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". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation:

$$\text{VOC in lb/MMBtu} = \frac{(\text{ppmv dry}) \times (F, \text{dscf / MMBtu})}{(1.135 \times 10^6) \times (20.9 - \% O_2)}$$

Where: F = As determined by EPA Method 19

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

Section 6.3.3 requires that NOx and O_2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.

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.

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.

Compliance with the test method requirements in this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1548-113-2	13-17
S-1548-144-38	43-47
S-1128-389-4	23-27
S-1128-424-3	22-26

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).

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this section. Units S-1548-144, -389 & -424 are Coanda effect flares and are not subject to this requirement.

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 flare in unit S-1548-113 is an emergency flare, and therefore exempt from this section. Units S-1548-144, -389 & -424 are not ground level flares so are exempt from this section.

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 by 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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from 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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from 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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from this section.

Section 6.5.4 states than 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.

The flare in unit S-1548-113 is an emergency flare, and therefore exempt from 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.

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. .

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.

Section 6.9 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 comply with the following, as applicable:

6.9.1 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.

6.9.2 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.

6.9.3 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.

6.9.4 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.

Section 6.10 applies to petroleum refinery flares. None of the flares at this facility are petroleum refinery flares; therefore the requirements of this section do not apply.

Compliance with the monitoring requirements in this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1548-113-2	18-24
S-1548-144-38	48-58
S-1128-389-4	28-38
S-1128-424-3	27-28

Section 7.0 establishes the compliance schedule requirements for existing and new flares. Permit units S-1548-113, -144, -389 and -424 are existing

flares and are operating in compliance with the requirements of this rule. Therefore, no further discussion is required.

District Rule 4401 – Steam-Enhanced Crude Oil Production Well Vents

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 D 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.

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.

Section 3.50 defines the VOC collection and control system as "An APCO-approved 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."

Definitions of the terms discussed above are included as permit conditions 11 and 12 for permit unit -470-2 and conditions 21 and 22 for permit unit -423-4.

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.

This exemption is listed as a permit condition 13 on permit unit -470-2 and condition 23 for permit unit -423-4.

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.

Compliance with these sections is demonstrated with the permit condition 14 on permit unit 470-2 and condition 24 for permit unit -423-4.

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.

Compliance with the leak standards pursuant to Section 5.2 are demonstrated with permit condition 15 on permit unit -470-2 and condition 25 for permit unit -423-4.

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.

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.

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.

Compliance with the operating requirements in Sections 5.3 is demonstrated with permit conditions 16 and 17 on permit unit -470-2 and conditions 26 and 27 for permit unit -423-4.

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.

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.

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.

Section 5.4.7 requires that an operator shall inspect all unsafe-to-monitor components during each turnaround.

Section 5.4.8 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.

Compliance with the inspection and re-inspection requirements of Section 5.4 are demonstrated with permit conditions 18 through 24 on permit unit -470-2 and conditions 28 through 34 for permit unit -423-4.

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.

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.

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.

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

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.

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.

Compliance with the leak repair requirements of Section 5.5 are demonstrated with permit conditions 25-30 on permit unit -470-2 and conditions 35-40 for permit unit -423-4.

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.

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.

Section 6.1.2 states a small producer shall maintain monthly records of county-specific crude oil production.

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.

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.

Compliance with the recordkeeping requirements of Section 6.1 are demonstrated with permit conditions 31 through 36 on permit unit -470-2 and conditions 41 through 46 for permit unit -423-4.

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.

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.

Compliance with the source testing requirements of Section 6.2 are demonstrated with permit condition 37 on permit unit -470-2 and condition 47 for permit unit -423-4.

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.

Section 6.3.2 requires that the VOC content shall be 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.

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.

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.

Compliance with the test method requirements of Section 6.3 are demonstrated with permit conditions 38 through 40 on permit unit -470-2 and conditions 48 through 50 for permit unit -423-4.

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.

Compliance with the inspection log requirements of Section 6.4 are demonstrated with permit condition 41 on permit unit -470-2 and condition 51 for permit unit -423-4.

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.

Compliance with the ernployee training requirements of Section 6.5 are demonstrated permit condition 42 on permit unit -470-2 and condition 52 for permit unit -423-4.

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.

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.

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.

Compliance with the operator management plan requirements of Section 6.6, 6.7 and 6.8 are demonstrated by permit conditions 43 & 44 on permit unit -470-2 and conditions 53 and 54 for permit unit -423-4.

District Rule 4409 – Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities and Natural Gas Processing Facilities

The purpose of this rule is to limit VOC emissions from leaking components at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities.

Section 3.20 specifies the following emissions levels as a leak:

Type of Component	Major Gas Leak (ppmv methane)	Minor Gas Leak	
		Components in Liquid Service (ppmv as methane)	Components in Gas/Vapor Service (ppmv as methane)
Valves	> 10,000	1,000 to 10,000	2,000 to 10,000
Threaded Connections	> 10,000	1,000 to 10,000	2,000 to 10,000
Flanges	> 10,000	1,000 to 10,000	2,000 to 10,000
Pipes	> 10,000	1,000 to 10,000	2,000 to 10,000
Pumps	> 10,000	1,000 to 10,000	2,000 to 10,000
Compressors	> 10,000	1,000 to 10,000	2,000 to 10,000
Pressure Relief Devices (PRDs)	> 10,000	200 to 10,000	400 to 10,000
Polished Rod Stuffing Boxes	> 10,000	1,000 to 10,000	1,000 to 10,000
Other Components not listed above	> 10,000	1,000 to 10,000	2,000 to 10,000

Section 5.1.1 requires that an operator shall not use any component that leaks in excess of the applicable leak standards of this rule, or that is found to be in violation of the provisions specified in Section 5.1.3. 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 rule.

Section 5.1.2 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 and with minimal spillage of material and VOC emissions to the atmosphere.

Section 5.1.3.1.1 specifies that the operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.1.4 exist at the facility.

Section 5.1.3.1.2 goes on to specify that notwithstanding the provision of Section 5.1.3.1.1, minor gas leaks from polished rod stuffing boxes (PRSB) found during any District inspection shall not be counted toward determination of compliance with this rule provided the operator repairs, replaces, or removes leaking PRSB from VOC service as soon as practicable but not later than the time frame specified in this rule.

Section 5.1.3.2.1 specifies that except for annual operator inspections described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4.

Section 5.1.3.2.2 specifies that leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4.

Section 5.1.3.2.3 specifies that any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.6, 5.2.7, 5.2.8, or 5.2.9) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule.

Section 5.1.4 specifies that for the purpose of this rule, a component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 exist at the facility.

Section 5.1.4.1 specifies that a component shall be considered leaking if 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.

Section 5.1.4.2 specifies that a component shall be considered leaking with a major liquid leak (defined as a visible mist or a continuous flow of liquid that is not seal lubricant).

Section 5.1.4.3 specifies that a component shall be considered to have a gas leak if emissions are greater than 50,000 ppmv as methane.

Section 5.1.4.4 specifies that a component shall be considered leaking if a component has a leak described in Sections 5.1.4.4.1 through 5.1.4.4.3 and

numbering in excess of the maximum allowable number or percent specified in the following Table.

Component	Maximum Number of Leaks for 200 or Fewer Components Inspected	Maximum Percent or Number of Leaks for more than 200 Components Inspected
Valves	1	0.5 % of number inspected
Threaded Connections	1	0.5 % of number inspected
Flanges	1	0.5 % of number inspected
Pumps	2	1.0 % of number inspected
Compressors	1	1 leak
PRDs	1	1 leak
Polished Rod Stuffing Boxes	4	2 % of number inspected
Other Components not listed above	1	1 leak
Pipes at Light Crude Oil or Gas Production Facilities	Maximum Number of Leaks for 200 or fewer production wells inspected	Maximum Number of Leaks for more than 200 production wells inspected
	2	1 % of number inspected
Pipes at Gas Processing Facilities	Maximum Number of Leaks: 2	

Section 5.2.1 requires that for manned light oil production facilities, gas production facilities, and gas processing facilities, an operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, pressure relief valves (should say PRDs instead of PRVs) in service at least once every 24 hours except when operators do not report to the facility for that given 24 hours.

Section 5.2.2 requires that for unmanned light oil production facilities, gas production facilities, or gas processing facilities, the operator shall audio-visually inspect for leaks all accessible operating pumps, compressors, PRDs in service at least once per calendar week.

Section 5.2.3 requires that any audio-visual inspection of all accessible operating pumps, compressors, and PRDs performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected using the test method specified in Section 6.3.1 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.

Section 5.2.4 requires that notwithstanding the requirements of Sections 5.2.1, 5.2.2, and 5.2.3, the operator shall inspect all components using the

test method specified in Section 6.3.1 at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components, or pipes. Inaccessible components and unsafe-to-monitor components shall be inspected in accordance with the provisions of Sections 5.2.6 and 5.2.7, respectively. Pipes shall be inspected in accordance with the provisions of Section 5.2 8.

Section 5.2.5 requires that the operator shall inspect, immediately after placing into service, all new, replaced, or repaired fittings, flanges, and threaded connections using the test method specified in Section 6.3.1.

Section 5.2.6 requires that the operator shall inspect all inaccessible components at least once every 12 months using the test method specified in Section 6.3.1.

Section 5.2.7 requires that the operator shall inspect all unsafe-to-monitor components during each turnaround using the test method specified in Section 6.3.1.

Section 5.2.8 requires that the operator shall visually inspect all pipes for leaks at least once every 12 months.

Section 5.2.8.1 requires that 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 using the test method specified in Section 6.3.1 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.

Section 5.2.8.2 requires that the operator may conduct the annual pipe inspection required by Section 5.2.8 in conjunction with the annual pipe inspection required by the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities). Records of annual pipe inspection required by DOGGR or SPCC may be used to document the inspection required by Section 5.2.8. The operator shall maintain the records of such inspections at the facilities. The records shall be made available to the APCO, ARB, and EPA upon request.

Section 5.2.9 requires that notwithstanding the requirement of Section 5.2.4, the operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, or an operator who is already on an annual inspection frequency on or before (rule

adoption date) may apply for a written approval from the APCO to continue conducting annual inspections for a component type, provided the operator meets all the criteria specified in Sections 5.2.9.1 through 5.2.9.3. This approval shall apply to accessible component types specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. Sections 5.2.9.1 through 5.2.9.3 specify the following requirements:

1) The operator was not in violation of any provision of Sections 5.1 during five consecutive quarterly inspections for that component type.
2) The operator did not receive a Notice of Violation from the APCO during the previous 12 months violating any provisions of this rule for that component type.
3) The written request shall include pertinent documentation to demonstrate that the operator has successfully met the requirements of Sections 5.2.9.1 and 5.2.9.2.
4) The annual inspection frequency approved by the APCO pursuant to Section 5.2.9 shall revert to quarterly inspection frequency for a component type if either one of the following occurs:
5) The operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2, or 5.3 exists for that component type; or
6) The APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type.

Section 5.2.10 requires that the annual inspection frequency approved by the APCO pursuant to Section 5.2.9 shall revert to quarterly inspection frequency for a component type if either one of the following occurs:

1) The operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2, or 5.3 exists for that component type; or
2) The APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type.

Section 5.2.11 requires that when the inspection frequency changes from annual to quarterly inspections pursuant to Section 5.2.10, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency. The written notification shall include the reason(s) and date of change to quarterly inspection frequency.

Section 5.2.12 requires that the operator shall initially inspect a PRD that releases to the atmosphere using the test method specified in Section 6.3.1 as soon as practicable but not later than 24 hours after the time of the release. The operator shall reinspect the PRD using the test method specified in Section 6.3.1 not earlier than 24 hours after the initial inspection

but not later than 15 calendar days after the date of the release and is leak-free (is leak free should not be in this statement). If the PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections.

Section 5.2.13 requires that except for PRDs subject to the requirements of Section 5.2.12, a component shall be inspected not later than 15 calendar days after repairing the leak or replacing the component using the test method specified in Section 6.3.1.

Section 5.2.14 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. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered a willful circumvention of the rule and is a violation of this rule.

Section 5.3.1 requires that upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall meet the following requirements:

1. The tag shall remain affixed to the component until all the conditions specified in Sections 5.3.2.1 through 5.3.2.3 have been met.
2. The leaking component has been repaired or replaced; and
3. The component has been re-inspected using the test method in Section 6.3.1; and
4. The component is found to be in compliance with the rule requirements.

The tag shall include the following information:

1) Date and time of leak detection.
2) Date and time of leak measurement.
3) For gaseous leaks, indicate the leak concentration in ppmv.
4) For liquid leaks, indicate whether it is a major liquid or a minor liquid leak.
5) For essential components, unsafe-to-monitor components, or critical components, so indicate on the tag.

Section 5.3.4 requires that an operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere.

Section 5.3.5 requires that if the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall comply with at least one of the requirement of Sections 5.3.5.3, 5.3.5.4 or 5.3.5.5 as soon as practicable but not later than the time period specified in Table 3.

1) The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period specified in Table 3.
2) The start of the repair period shall be the time of the initial leak detection.
3) Repair or replace the leaking component; or
4) Vent the leaking component to a closed vent system as defined in Section 3.0.
5) Remove the leaking component from operation.

Type of Leak	Repair Period in Calendar Days	Extended Repair Period in Calendar Days
Minor Gas Leak	7	7
Major Gas Leak greater than 10,000 ppmv but equal to or less than 50,000 ppmv	3	2
Major Gas Leak greater than 50,000 ppmv	2	0
Minor Liquid Leak	3	0
Major Liquid Leak	2	0

Section 5.3.5 further states that for each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest integer where required.

Section 5.3.6 requires that if the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall:

1) Minimize the leak within one hour after detection of leaks; and
2) If the leak has been minimized, but the leak still exceeds the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced 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.

Section 5.3.7 requires that for any component that has incurred five repair actions for major gas leaks or major liquid leaks, or combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred

five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6.

1) Replace or retrofit the component with the control technology specified in Table 4. Notify the APCO in writing prior to replacing or retrofitting the component; or
2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment, as determined in accordance with Rule 2201 (New and Modified Stationary Source Review Rule), and as approved by the APCO in writing; or
3) Vent the component to an APCO-approved closed-vent system as defined in Section 3.0; or
4) Remove the component from operation.
5) For any component that is accessible, is not unsafe-to-monitor, is not an essential component, is not a critical component, the operator shall comply with the requirement of Section 5.3.7.1, Section 5.3.7.2, Section 5.3.7.3, or Section 5.3.7.4 as soon as practicable but not later than twelve (12) months after the date of detection of the fifth major leak within a continuous 12- month period as indicated in Section 5.3.7.
6) For any inaccessible component, unsafe-to-monitor component, essential component, or critical component the operator shall comply with the requirement of Section 5.3.7.1, Section 5.3.7.2, Section 5.3.7.3 or Section 5.3.7.4 as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period as indicated in Section 5.3.7, whichever comes earlier.

Component Type	Control Technology
Compressors	Replace existing seal with dual mechanical seal, oil film seal, gas seal, or face-type seal
Pumps	Replace with seal-less pump or replace with dual mechanical seal
PRDs	Replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc
Valves	Replace with sealed bellows valve, or graphite or teflon chevron seal rings in a live-loaded packing gland
Threaded Connections	Weld connections or replace threaded connections with flanges
Sampling Connections	Replace with closed-loop sampling system

Section 5.4.1 requires that all major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels,

tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or the APCO to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery.

Section 6.1.1 requires that by October 20, 2005, an operator whose existing components are either subject to this rule or whose existing components are exempt pursuant to Section 4.2 of this rule on or before April 20, 2005 shall submit an Operator Management Plan (OMP) for approval by the APCO.

Section 6.1.2 requires that the operator shall keep a copy of the APCO-approved Operator Management Plan at the facility and make it available to the APCO, ARB, and US EPA upon request.

Section 6.1.3 requires that the operator shall describe in the Operator Management Plan all components subject to this rule and all components that are exempt pursuant to Section 4.2 of this rule. The Plan shall contain a description of the procedures that the operator will use to comply with the requirements of this rule.

Section 6.1.4 requires that by January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

Section 6.2.1 requires that the operator shall maintain an inspection log containing, at a minimum, all of the following information:

1) Total number of components inspected, and total number and percentage of leaking components found by component types.
2) Location, type, name or description of each leaking component and description of any unit where the leaking component is found.
3) Date of leak detection and method of leak detection.
4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak.
5) Date of repair, replacement, or removal from operation of leaking components.
6) Identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
7) 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) After the component is repaired or is replaced, the date of re-inspection and the leak concentration in ppmv.
9) Inspector's name, business mailing address, and business telephone number.
10) The facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log.

Section 6.2.2 requires that records of leaks detected during quarterly or annual operator inspection, and each subsequent repair and re-inspection, shall be submitted to the APCO, ARB, and US EPA upon request.

Section 6.2.3 requires 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 6.2.4 requires that copies of all records required by Section 6.2 of this rule shall be retained for a minimum of five (5) years after the date of an entry, and the records shall be made available to the APCO, ARB, and US EPA upon request.

Equivalent test methods other than specified in Sections 6.3.1 through 6.3.8 may be used provided such test methods have received prior approval from the EPA, ARB, and APCO.

Section 6.3.1 requires that measurements of gaseous leak concentrations shall be conducted according to US 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 US 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.

Section 6.3.2 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 for liquids.

Section 6.3.3 requires that the percent by volume liquid evaporated at 150 °C shall be determined using ASTM Method D 86-82.

Section 6.3.4 requires that the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix A, which is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989.

Section 6.3.5 requires that the API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287-92 (2000) e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method) or ASTM 1298-85 (Standard Practice for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057-95 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products".

Section 6.3.6 requires 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. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported.

Section 6.3.7 requires that halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emissions from Stationary Sources".

Conditions 42 through 96 of the requirements for the revised facility wide permit S-1548-0-4 will assure compliance with the requirements of this rule.

District Rule 4601 – Architectural Coatings

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

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

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

Conditions 23, 24, and 25 of the requirements for this revised facility wide permit S-1548-0-4 will assure compliance with the requirements of this rule.

District Rule 4623 - Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Several of the permits for the tanks at this facility are identical and therefore will be grouped together when demonstrating compliance with rule requirements. The tank groups (bundle) and designated permits are listed below.

Tanks Bundle A:
S-1548-428-6, -429-6, -439-6, -440-6, -441-6, -442-6, -443-5, -444-4, -445-2, -463-2, -475-3, -476-2, 478-2, -479-2, -480-2, -481-2 & -497-2.

Tanks Bundle B:
S-1548-482-4 & -483-4.

Tanks Bundle C:
S-1548-45-7, 121-7, -122-6, -126-6, -143-5 -144-38, -145-5, -146-5, -147-5, -148-5, -149-5, -385-7, -386-7, -418-6, -419-6, -420-6, -484-4, -486-4, -487-4, -488-4, -489-4, -498-2, -501-2, -503-1 & -504-1.

4.0 Exemptions

Section 4.0 states that the provisions of this rule shall not apply to: Pressure vessels, Gasoline storage tanks with a capacity of less than 19,800 gallons that are subject to the requirements of Rule 4621 (Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, and Bulk Plants), tanks that are used for storage/processing of clean produced water, or other water that meets the VOC standard specified in the definition of "clean produced water" in Rule 1020 (Definitions) or Tanks used in wine fermentation and for storage of resulting products, by-products, and spirits.

The tanks in Bundle A are pressure vessels and therefore are exempt from the provisions of this rule. Condition 1 for the permits in Bundle A ensure compliance.

The tanks in Bundle B are used for storage/processing of clean produced water and are therefore exempt from the provisions of this rule. Condition 1 on the permits in Bundle B ensure compliance.

5.0 Requirements

Section 5.1.1 states that except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid 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 (Gallons)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 psia to <1.5 psia	1.5 psia to <11 psia	≥11.0 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 tanks in Bundle C are all connected to a vapor recovery system compliance is shown by conditions 1 and 2 of the permits. Permit unit -499-4 is equipped with a pressure relief valve compliance is shown with condition 3 of the permit.

5.2 Specifications for Pressure-Vacuum Relief Valve

The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum

relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure.

Permit unit -499-4 is equipped with a pressure relief valve compliance is shown with condition 3 of the permit.

5.6 Specifications for Vapor Recovery Systems

Section 5.6.1 states that fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. An APCO-approved vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be one of the following:

- A condensation or vapor return system that connects to one of the following: a gas processing plant, a field gas pipeline, a pipeline distributing Public Utility Commission quality gas for sale, an injection well for disposal of vapors as approved by the California Department of Conservation, Division of Oil Gas, and Geothermal Resources, or

- A VOC control device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.6.

Section 5.6.2 states that 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 states that all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.

Condition 4 on the permits of tank Bundle C assure compliance with this section.

5.7 Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program

Only operators who elect to participate in the voluntary tank preventive inspection and maintenance, and tank interior cleaning program (program) shall be allowed to use the provisions specified in Tables 3 to 5 and Section 5.7.5. When using Tables 3 to 5 and Section 5.7.5 provisions, operators shall perform the procedures as expeditiously as practicable and minimize

emissions to the maximum extent practicable. To participate in this program, the operator shall comply with the following requirements:

- Submit a letter to the APCO prior to conducting tank inspection, maintenance, and cleaning activities. The letter shall contain a list of each tank that will be subject to this program. The list shall include the tank identification number and location, and/or PTO numbers.

- Keep in their facility at all times a copy of the letter sent to the APCO and maintain the records of annual tank inspection, maintenance and cleaning activities, to document their participation in the program.

- The absence of a copy of the letter and/or failure to maintain appropriate records shall be deemed as non-participation in the program, and therefore the operator will not be eligible to use the provisions specified in Tables 3 to 5 and Section 5.7.5. Those who have not voluntarily participated in the program but are found to be using the provisions of Tables 3 to 5, and Section 5.7.5 shall be deemed to be in violation of this rule.

- Operators who elect to participate in this program but who fail to comply with all of the requirements specified in Tables 3 to 5 and Section 5.7.5 shall be deemed to be a violation of the provisions of this rule.

Conditions 5-10 on the permits of tank Bundle C assure compliance with this section. Conditions 10-15 on permit unit -499-4 assure compliance with this section.

Section 5.7.5.1 states that operators of storage tanks subject to the requirements of Section 5.7 shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following information:

- The PTO number and physical location of the tank being degassed,

- The date and time that tank degassing and cleaning activities will begin,

- The degassing method, as allowed pursuant to Section 5.7.5.4, to be used,

- The method to be used to clean the tank, including any solvents to be used, and

- The method to be used to dispose of the removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport.

Section 5.7.5.2 states that operators shall maintain records of tank cleaning activities for a period of 5 years and present said records to the APCO upon request. Records should include the final details of the planned activities submitted pursuant to Section 5.7.5.1.

Section 5.7.5.4 states that except for tanks satisfying Section 5.7.5.3 provisions, the process of tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods:

- Exhaust VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or

- Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or

- Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or_natural gas containing less than 10 percent VOC by weight; or

- For free-water knockout tanks, the operator may degas the tank vapor space by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced.

- During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and meets the requirements of Section 5.6.1.1 or Section 5.6.1.2.

- To facilitate connection to an external APCO-approved vapor recovery system a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour.

- Except as provided for in Section 5.7.5.4.9, the tank shall be in compliance with the applicable requirements specified in Section 5.1

through Section 5.6 during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater.

- Draining and refilling of floating roof tanks shall occur as a continuous process and shall proceed as rapidly as practicable while the roof is not floating on the surface of the stored liquid.

- For floating-roof tanks, the gap seal requirements specified in Sections 5.3.2 and 5.4.2 shall not apply while the roof is resting on its legs, and during the processes of draining, degassing, or refilling the tank. The leak-free condition specified in Section 5.1.3 shall not apply during refilling the tank, if the operator complies with Section 5.7.5.4.8 requirements.

- After a tank has been degassed pursuant to the provisions of Section 5.7.5 the requirements specified in Section 5.1 through Section 5.6 shall not apply until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in the tank.

Conditions 11-16 on the permits of tank Bundle C assure compliance with these sections. Condition 16 on permit unit -499-4 assures compliance with these sections.

Section 5.7.5.5 states that while performing tank cleaning activities, operators may use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams per liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during the months of December through March.

Conditions 17 & 18 on the permits of tank Bundle C assure compliance with this section. Conditions 17 & 18 on permit unit -499-4 assures compliance with this section.

Section 5.7.5.6 states that operators of tanks containing an organic liquid with a TVP of 1.5 psia or greater shall control emissions from the removed sludge by complying with all of the following provisions:

- During sludge removal the operator shall control emissions from the receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95 percent.

- Operators shall transport removed sludge in closed, liquid leak-free containers.

- Notwithstanding Section 5.7.5.6.2, operators shall store removed sludge, until final disposal, in leak-free containers, or tanks complying with Section

5.1 requirements. Sludge that is to be used to manufacture roadmix, as defined in Rule 2020 (Exemptions), is exempt from this requirement. Roadmix manufacturing operations exempt pursuant to Rule 2020, shall maintain documentation of their compliance with Rule 2020, and promptly make said documentation available to the APCO upon request.

Conditions 19-21 on the permits of tank Bundle C and permit unit -499-4 assure compliance with this section.

6.2 TVP and API Gravity Testing of Stored Organic Liquid in Uncontrolled Fixed Roof Tanks

Section 6.2.2 states that effective on and after November 15, 2003, an operator shall conduct a TVP testing of each uncontrolled fixed roof 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 each tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. The operator shall also comply with Section 6.2.1.2. The operator shall submit the records of TVP and/or API gravity testing to the APCO as specified in Section 6.3.6.

Condition 23 on permit unit -499-4 assures compliance with this section.

6.3 Recordkeeping

An operator shall retain accurate records required by this rule for a period of five years. Records shall be made available to the APCO upon request, except for certain records that need to be submitted as specified in the respective sections below.

Section 6.3.6 states that an operator shall submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined.

Compliance with the recordkeeping provisions pursuant to Section 6.3.6 are demonstrated with the permit condition 24 on permit unit -499-4.

7.0 Compliance Schedule

Section 7.2 states that any tank that is exempted under Section 4.0 that becomes subject to the VOC control system requirements of this rule through the loss of exemption status, shall be in full compliance with this rule on the date the exemption status is lost.

District Rule 4702 – Internal Combustion Engines – Phase 2

Some of the engines for this facility have the same operating permits and can therefore be bundled together to show compliance with this section. The following bundles will be used through the remainder of this rule discussion:

Engine Bundle A

-115-7 & -116-7

Engine Bundle B
171-5 through 175-5

Engine Bundle C
-400-12 & -411-12

Engine Bundle D
-434-5 & -435-5

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp, that requires a Permit to Operate (PTO).

All of the District Rule 4702 requirements on the existing permits have been removed and updated in accordance with the latest rule amendments and have been included as discussed below.

Section 5.1 requires that the owner of an internal combustion engine shall not operate it in such a manner that results in NO_x, CO or VOC emissions exceeding the limits in the Engine Emission Limits table, or the percent reduction in emissions, for the appropriate engine type, according to the compliance schedule listed in Section 7.0.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	6
Bundle B	8
Bundle C	4,6 & 7
Bundle D	15
-433-5	14

Section 5.2 requires that all continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutive minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule. The internal combustion engines at this facility do not have a CEMS installed; therefore this section of the rule is not applicable.

Section 5.3 requires that if the percent emission reduction method is used to comply with the NO_x emissions limits specified in Section 5.1, the percent emission reductions should be calculated as follows:

- For engines with external control devices that are not operated in combination with a second emission control device or technique, percent reduction shall be calculated using emission samples taken at the inlet and outlet of the control device.

- For engines without external control devices and for engines with an external device in combination with a second emission control device or technique, percent reduction shall be based on source test results for the uncontrolled engine and the engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive source test to ensure that the engine is meeting the percent reduction limit. When representative source sampling prior to the application of an emissions control technology or technique is not available, the APCO may approve the use of a manufacturer's uncontrolled emissions information or source sampling from a similar, uncontrolled engine.

Condition 4 of engine Bundle C shows compliance with this section.

The emission limits on the permit already account for the percent reduction compared to an uncontrolled engine. Therefore, by demonstrating compliance with the emission limit on the permit, Aera will also be demonstrating compliance with the percent reduction required by the rule. Therefore, conditions to ensure continued compliance are not required no further discussion is required.

Section 5.4 requires an owner of an internal combustion engine that uses percent emission reduction to comply with the NO_x emission limits of Section 5.1 shall provide an accessible inlet and outlet on the external control device or the engine as appropriate for taking emission samples as approved by the APCO. As discussed above, Aera is not required to demonstrate compliance with a percent reduction limit by taking sample before and after an external control device. Therefore, the requirements of this section are not applicable and no further discussion is required.

Condition 4 of engine Bundle C shows compliance with this section.

Section 5.5 requires that that all gasoline-fired, spark-ignited internal combustion engines shall be fired on California Reformulated Gasoline. The engines associated with this project are all natural gas fired internal combustion engines. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 5.6 specifies the monitoring requirements for spark-ignited internal combustion engines not operated as a part of an agricultural facility. The majority of the engines operated by this facility are spark-ignited internal combustion engines. This facility does not perform any agricultural operation(s) at this location. Therefore, the requirements of this section apply to the engines operated at this facility.

Section 5.6.1 required that, for each engine with a rated brake horsepower of 1,000 hp or greater and which is permitted to operate more than 2,000 hours per calendar year, or with an external emission control device, shall either install, operate, and maintain continuous monitoring equipment for NO_x, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:

- Periodic NO_x and CO emission concentrations,
- Engine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to engine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	22 - 25
Bundle B	16 - 19
Bundle C	14 - 17
Bundle D	23 - 26
-433-5	21 - 24

Section 5.6.2 states that for each engine not subject to Section 5.6.1, monitor operations characteristics recommended by the engine manufacturer or emission control system supplier, and approved by the APCO. This facility is proposing to operate all of their internal combustion engines in compliance with the requirements of Section, 5.6.1. Therefore, the requirements of this section do not apply and no further discussion is required.

Section 5.6.3 requires that for each engine with an alternative monitoring system, submit to, and receive approval form the APCO, adequate verification of the altemative monitoring system's acceptability. The applicant has already submitted and been approved to perform periodic monitoring of the NO_X, CO and O_2 concentrations at least once per month from each internal combustion engine. Therefore, the applicant has already complied with the requirements of this section and no further discussion is required.

Sections 5.6.4 and 5.6.5 discuss the requirements for engines operating with APCO approved CEMS. The applicant does not use CEMS on any of their engines. Therefore, the requirements of these sections are not applicable and no further discussion is required.

Section 5.6.6 requires that for each engine, install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate. The owner of the engine shall properly maintain and operate the meter or alternative device in accordance with the manufacturer's instructions.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	1
Bundle B	6
Bundle C	1
Bundle D	4
-433-5	4

Section 5.6.7 requires that for each engine, the permittee shall implement the Inspection and Monitoring (I&M) plan submitted to and approved by the APCO pursuant to Section 6.5. The applicant has already submitted an I&M plan to the District and has been approved. Therefore, the applicant has satisfied the requirements of this section and no further discussion is required.

Section 5.6.8 requires that for each engine, collect data through the I&M plan in a form approved by the APCO. The applicant has submitted an I&M program and the implementation of this plan will be explained in detail in the section that covers Section 6.5 of this Rule.

Section 5.6.9 requires that each engine, use a portable NO_x analyzer to take NO_x emission readings to verify compliance with the emission requirements of Section 5.1 or Section 8.0 during each calendar quarter in which a source test is not performed. All emission readings shall be taken with the engine 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. All NO_x emissions readings shall be reported to the APCO in a manner approved by the APCO. NO_x emission readings taken pursuant to this section 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.

Periodically monitoring the NO_x emission concentrations to comply with Section 5.6.1 also satisfies the requirements of this section. Therefore, the conditions specified in Section 5.6.1 above will ensure continued compliance with the requirements of this section and no further discussion is required.

Section 5.6.10 states that the APCO shall not approve an alternative 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 operator shall source test over the proposed range of surrogate parameters to demonstrate compliance with the applicable emission standards.

Aera is not proposing an alternative monitoring system for any of its internal combustion engines. Therefore, the requirements of Section 5.6.10 are not applicable and no further discussion is required.

Section 5.6.11 specifies that each engine subject to the requirements of Section 8.0, install and operate a nonresettable fuel meter. The engines operated by this facility are not subject to the requirements of Section 8.0. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 5.7 specifies the monitoring requirements for spark-ignited internal combustion engines operated at agricultural facilities, compression-ignited internal combustion engines, and emergency internal combustion engines. None of the engines at this facility meet these categories therefore they are not subject to this subpart.

Section 5.8 specifies the requirements for obtaining stationary equipment registration for engines used in agricultural operations. The engines operated at this facility are all currently required to maintain Permits to Operate. Therefore, the requirements of this section are not applicable and no further discussion is required.

Sections 6.1.1 and 6.1.2 require that the owner of an engine subject to the requirements of this rule shall submit to the APCO an emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0. Such emission control plan shall contain a list with the following for each permitted engine:

- Permit-to-Operate number
- Engine manufacturer
- Model designation
- Rated brake horsepower
- Type of fuel and type of ignition
- Combustion type: rich-burn or lean-burn
- Total hours of operation in the previous one-year period, including typical daily operating schedule
- Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period
- Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing
- Type of control to be applied, including in-stack monitoring specifications
- Applicable emission limits
- Documentation showing existing emissions of NO_x, VOC, and CO, and
- Date that the engine will be in full compliance with Rule 4702.

Section 6.1.3 requires that the emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation

sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule.

The applicant has already submitted all the required information to comply with Sections 6.1.1, 6.1.2 and 6.1.3 of this rule. Therefore, the requirements of this section have already been satisfied and no further discussion is required.

Section 6.2.1 requires that except for engines subject to Section 4.0, the owner of an engine subject to the requirements of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.

Section 6.2.2 also requires that data collected in accordance with Sections 5.6 and 5.7 shall be maintained for at least five years, shall be readily available, and made available to the ACPO upon request.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	26 & 27
Bundle B	39 & 40
Bundle C	32 & 33
Bundle D	40 & 41
-433-5	38 & 39

Section 6.3.2 requires that the owner of an engine subject to the emission limits in Section 5.1 or the requirements of Section 8.2, shall demonstrate compliance with applicable limits, ppmv or percent reduction, by the applicable date specified in Section 7.6 and at least once every 24 months thereafter, in accordance with the test methods in Section 6.4.

Section 6.3.3 stats that emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or

conditions specified in the Permit-to-Operate. For emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation, 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. VOC shall be reported as methane. NO_x, CO, and VOC concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit in Table 1, the percent reduction of NO_x emissions shall also be reported.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	7
Bundle B	9
Bundle C	8
Bundle D	16
-433-5	15

Section 6.3.4 states that in addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan. Aera is required to submit a source test protocol prior to each source test which describes the critical parameters and how the will be measured in accordance with District Rule 1081. In addition, Aera is also required to notify the District upon any change in their I&M plan. Therefore, as long as Aera is in continued compliance with the requirements of the District Rule 1081 and the I&M requirements of Rule 4702, they will be in compliance with the requirements of this section and no further discussion is required.

Section 6.3.5 states that engines that are limited by Permit-to-Operate or Stationary Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the biennial source test requirements of Section 6.3.2 for VOC emissions. All of the engines operated at this facility are required to fire on PUC quality natural gas. The applicant has proposed to source test each of the engines at this facility at least once every 24 months for VOC emissions. Therefore, the biennial source testing requirement of Section 6.3.2 for VOC emissions will be included on each of the permits. See the Section 6.3.2 discussion above for the conditions that will be included on the permits to ensure compliance with this requirement.

Section 6.4 specifies the source test methods that should be used to demonstrate compliance with the requirements of Section 5.0. The following test procedures or any other method approved by EPA and the APCO shall be used:

- Oxides of nitrogen – EPA Method 7E, or ARB Method 100.
- Carbon monoxide – EPA Method 10, or ARB Method 100.
- Stack gas oxygen – EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds – EPA Method 25A or 25B, or ARB Method 100.
- Operating horsepower determination – any method approved by the APCO and EPA.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	8
Bundle B	14
Bundle C	12
Bundle D	21
-433-5	19

Section 6.5 specifies that the owner of an engine subject to the requirements of Section 5.1 or the requirements of Section 8.0 shall submit to the APCO for approval, an Inspection and Maintenance (I&M) Plan to the APCO for approval. Aera has previously submitted their I&M Plan to the District for approval along with their Rule 4702 ATC application package. Therefore, the requirements of this section have been satisfied.

The conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle A	14 & 15
Bundle B	20 & 21
Bundle C	18 & 19
Bundle D	27 & 28
-433-5	25 & 26

Section 7.0 specifies the compliance schedules for different engine types that are subject to the requirements of this rule. In accordance with Section 7.6, Aera is required to be operating the engines in full compliance with this rule as follows:

Quantity of Spark-Ignited Engines to be in Compliance at a Stationary Source	Compliance Date
a. 25% or more of the total number of spark-ignited engines at a stationary source on June 1, 2005	6/1/05
b. 62.5% or more of the total number of spark-ignited engines at a stationary source on June 1, 2006	6/1/06
c. 100% of the total number of spark-ignited engines at a stationary source on June 1, 2007	6/1/07

The District has determined that the facility has been operating in compliance with the requirements of this section. Therefore, these engines are operating in compliance with the requirements of this section and no further discussion is required.

District Rule 8011 – General Requirements

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

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

Conditions 29 through 44 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

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

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

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

modification to existing landfill disposal sites prior to commencement of landfilling activities.

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

Condition 29 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

District Rule 8031 – Bulk Materials

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

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

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

Condition 30 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

District Rule 8041 – Carryout and Trackout

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

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

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from

paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Condition 31 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

District Rule 8051 – Open Areas

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

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

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

Condition 32 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

District Rule 8061 – Paved and Unpaved Roads

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

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

Condition 33 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

District Rule 8071 – Unpaved Vehicle/Equipment Traffic Area

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

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

Condition 34 of the facility-wide requirements S-1548-0-4 will ensure compliance with these requirements.

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-1548-113, -144, -389 & -424 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.

40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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

§ 63.6585 Applicability

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. As such, the emergency engines at this facility are subject to this subpart.

§ 63.6590 What parts of my plant does this subpart cover?

§6590(a) states, "An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand."

§6590(a)(1) defines the criteria for an existing stationary RICE as follows:

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

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

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

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

This facility is an area source of HAP emissions. The engines at this facility have not commenced construction or reconstruction on or after June 12, 2006. Therefore, the engines at this facility meet the definition of an existing stationary RICE as defined in §6590(a)(1)(iii).

§6590(b)(3) states that the following engines do not have to meet the requirements of this subpart and of subpart A of this part:

- Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- Existing residential emergency stationary RICE located at an area source of HAP emissions;
- Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
- Existing institutional emergency stationary RICE located at an area source of HAP emissions.

The engines at this facility do not qualify for any of the exemptions listed above.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;
(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

§ 63.6595 When do I have to comply with this subpart?

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

comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you. Note, there are no Table 1b or Table 2b operating limitations for emergency engines.

Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions.

As stated in §§63.6603 and 63.6640, the following table applies to existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirements, except during periods of startup . . .	During periods of startup you must . . .
4. Emergency stationary CI RICE and black start stationary CI RICE.*	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;	N/A
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	N/A
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	N/A

*If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(f) *Requirements for emergency stationary RICE.*

(1) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not

limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§ 63.6645 What notifications must I submit and when?

There are no notifications necessary for existing emergency engines.

§ 63.6650 What reports must I submit and when?

There are no report submittals necessary for existing emergency engines.

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records as follows:

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

(2) An existing stationary emergency RICE.
(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) below, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Compliance with the requirements of this subpart is demonstrated with the permit conditions listed in the table below. Engines included in each Engine Bundle are listed under the discussion of Rule 4702.

Permit Unit(s)	Permit Condition(s)
Bundle A	27-34
Bundle B	41-47
Bundle C	34-40
Bundle D	41-50
-433-5	39-46

40 CFR Part 60, Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978

Since the date of construction, reconstruction, or modification is not known for the storage tanks, each potentially applicable NSPS subpart (K, Ka, and Kb) will be reviewed to determine what requirements, if any, apply.

§ 60.110 Applicability and designation of affected facility:

(a) Except as provided in §60.110(b), the affected facility to which this subpart applies is each storage vessel for petroleum liquids which has a storage capacity greater than 151,412 liters (40,000 gallons).

(b) This subpart does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

Since Area S-1548 is a petroleum production facility the subparts of this rule are not applicable.

Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

Since the date of construction, reconstruction, or modification is not known for the storage tanks, each potentially applicable NSPS subpart (K, Ka, and Kb) will be reviewed to determine what requirements, if any, apply.

§ 60.110a Applicability and designation of affected facility:

(a) Affected facility. Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.

(b) Each petroleum liquid storage vessel with a capacity of less than 1,589,873 liters (420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer is not an affected facility and, therefore, is exempt from the requirements of this subpart.

The tanks in this project are part of an oil production facility prior to custody transfer; therefore, therefore Subpart Ka is not applicable to all the units.

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.

Since the date of construction, reconstruction, or modification is not known for the storage tanks, each potentially applicable NSPS subpart (K, Ka, and Kb) will be reviewed to determine what requirements, if any, apply.

40 CFR 60 Subpart Kb applies to volatile organic liquid storage vessels greater than 950 bbl in capacity for which construction, reconstruction, or modification has commenced after July 23, 1984. The proposed modified tank is subject to 40 CFR Part 60 Subpart Kb.

Pursuant to 40 CFR 60.112b (3), the modified tank requirements are satisfied with a closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, Sec. 60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (Sec. 60.18) of the General Provisions.

(i) To ensure compliance with paragraph (i), the following condition will be listed on all tank permits (Tank Bundles A, B & C):

- A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)]]

(ii) Paragraph (ii) applies to all of the tanks at S-1548.

Compliance with paragraph (ii) will be ensured by all tanks being connected to a vapor recovery system.

40 CFR Part 64 – CAM

§64.2 – Applicability

This section 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; 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.

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO_X	20,000
CO	200,000
PM_{10}	140,000
SO_X	140,000

Tanks:

Tanks Bundle A:
S-1548-428-6, -429-6, -439-6, -440-6, -441-6, -442-6.

Tanks Bundle B:
S-1548-45-7, 121-7, -122-6, -126-6, -143-5 -144-38, -145-5, -146-5, -147-5, -148-5, -149-5, -385-7, -386-7, -418-6, -419-6, -420-6, -443-5, -444-4, -445-2, -463-2, -475-3, -476-2,-474-?, 478-2, -479-2, -480-2, -481-2, -482-4, -483-4, -484-4, -486-4, -487-4, -488-4, -489-4, -497-2 & -498-2.

1) These units only contain a VOC emission limit.
2) The vapor control system on these units are a collection system and not a control device. Therefore, these units are not subject to CAM.

S-1548-499-4: 5,000 GALLON OIL/WATER TANK T-410 AND AUXILIARY EQUIPMENT INCLUDING TWO DECANTER CENTRIFUGES, ONE VERTICAL CENTRIFUGE, ONE AUGER, TWO OIL/WATER PUMPS AND FOUR ROLL-OFF BINS (DEHY 20)

1) This unit only contains a VOC emission limit.
2) There are no add on controls for this device. Therefore, this unit is not subject to CAM.

IC Engines that are not subject to CAM:

S-1548-115-7: 450 BHP AJAX DPC450 CLEANBURN IC ENGINE POWERING COMPRESSOR UNIT #5, WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1548-116-7: 450 BHP AJAX DPC450 CLEANBURN IC ENGINE POWERING COMPRESSOR UNIT #5, WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

3) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
4) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

IC Engines that are subject to CAM:

S-1548-171-5: 1,215 BHP WAUKESHA MODEL L-5790 GSI NATURAL GAS-FIRED IC ENGINE (SERIAL # C-12312/1) WITH 3-WAY CATALYST AND AIR/FUEL RATIO CONTROLLER DRIVING A GAS COMPRESSOR (MID BELRIDGE COMPRESSOR STATION #26)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.

4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	25	0.0921
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,215 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 90,291 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (90,291 MMBtu/yr)
= 204,960 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0921 lb-NO_X/MMBtu) x (90,291 MMBtu/yr)
= 8,315 lb-NO_X/year

Since 204,960 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (90,291 MMBtu/yr)
= 316,920 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (90,291 MMBtu/yr)
= 14,185 lb-CO/year

Since 316,920 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less

than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (90,291 MMBtu/yr)
= 2,680 lb-VOC/year

Since 2,680lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-172-5: 1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	25	0.0921
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,478 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu

= 109,832 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 249,320 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 10,115 lb-NO_X/year

Since 249,320 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 385,520 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 17,254 lb-CO/year

Since 385,520 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (109,832 MMBtu/yr)
= 3,260 lb-VOC/year

Since 3,260 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-173-5: 1,478 HBP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	25	0.0921
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,478 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 109,832 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 249,320 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 10,115 lb-NO_X/year

Since 249,320 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X

emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 385,520 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 17,254 lb-CO/year

Since 385,520 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (109,832 MMBtu/yr)
= 3,260 lb-VOC/year

Since 3,260 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-174-5: 1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.

4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	25	0.0921
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,478 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 109,832 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 249,320 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 10,115 lb-NO_X/year

Since 249,320 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 385,520 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 17,254 lb-CO/year

Since 385,520 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less

than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (109,832 MMBtu/yr)
= 3,260 lb-VOC/year

Since 3,260 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-175-5: 1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	25	0.0921
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,478 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 109,832 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 249,320 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (109,832 MMBtu/yr)
= 10,115 lb-NO_X/year

Since 249,320 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 385,520 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (109,832 MMBtu/yr)
= 17,254 lb-CO/year

Since 385,520 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (109,832 MMBtu/yr)
= 3,260 lb-VOC/year

Since 3,260 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-400-12: 498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a catalytic converter to control NO_X, CO and VOC emissions.
3) The engine is equipped with a catalytic converter, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Assume: engine efficiency of 30%
   Maximum use of 24 hr/day and 365 days/year
   Conversion from hp-hr to Btu is 2545 Btu/hp-hr

   Therefore,
   Heat Input = 498 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
   = 37,004 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (37,004 MMBtu/yr)
= 84,000 lb-NO_X/year

Since 84.000 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (37,004 MMBtu/yr)
= 129,900 lb-CO/year

Since 129,900 lb-CO/yr < 200,000 lb-CO/yr (Major Source threshold for CO), this unit is not subject to CAM for CO emissions.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (37,004 MMBtu/yr)
= 110 lb-VOC/year

Since 110 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-411-12: 498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a catalytic converter to control NO_X, CO and VOC emissions.
3) The engine is equipped with a catalytic converter, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Assume: engine efficiency of 30%
   Maximum use of 24 hr/day and 365 days/year
   Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 498 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 37,004 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (37,004 MMBtu/yr)
= 84,000 lb-NO_X/year

Since 84.000 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (37,004 MMBtu/yr)
= 129,900 lb-CO/year

Since 129,900 lb-CO/yr < 200,000 lb-CO/yr (Major Source threshold for CO), this unit is not subject to CAM for CO emissions.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (37,004 MMBtu/yr)
= 110 lb-VOC/year

Since 110 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-433-5: 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	5	0.0184
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,680 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 124,845 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 283,400 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0184 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 2,297 lb-NO_X/year

Since 283,400 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 438,220 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 19,613 lb-CO/year

Since 438,220 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (124,845 MMBtu/yr)
= 3,700 lb-VOC/year

Since 3,700 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-434-5: 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	5	0.0184
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,680 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 124,845 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 283,400 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0184 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 2,297 lb-NO_X/year

Since 283,400 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less

than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 438,220 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 19,613 lb-CO/year

Since 438,220 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (124,845 MMBtu/yr)
= 3,700 lb-VOC/year

Since 3,700 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

S-1548-435-5: 1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a 3-Way catalyst system to control NO_X, CO and VOC emissions.
3) The engine is equipped with a 3-Way catalyst, which is an integral control. Therefore, in determining CAM applicability, pre-control potential to emit will be evaluated using uncontrolled emission factors for uncontrolled 4-stroke rich burn natural gas fired IC engines from AP-42 Table 3.2-3.
4) Controlled emissions will be based on the permitted emission factors and summarized in the table below

Pollutant	ppmv @ 15% O2	lb/MMBtu
NO_X	5	0.0184
CO	70	0.1570
VOC	30	0.0384

5) Assume: engine efficiency of 30%
Maximum use of 24 hr/day and 365 days/year
Conversion from hp-hr to Btu is 2545 Btu/hp-hr

Therefore,
Heat Input = 1,680 bhp/.3 x 2545 Btu/hp-hr x 24 hr/day x 365 day/yr x MMBtu/1,000,000 Btu
= 124,845 MMBtu/yr

Annual PE:

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (2.27 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 283,400 lb-NO_X/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0184 lb-NO_X/MMBtu) x (124,845 MMBtu/yr)
= 2,297 lb-NO_X/year

Since 283,400 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (3.51 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 438,220 lb-CO/year

$PE_{controlled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.1571 lb-CO/MMBtu) x (124,845 MMBtu/yr)
= 19,613 lb-CO/year

Since 438,220 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions. Furthermore, the controlled emissions are less than the major source threshold. Therefore, daily monitoring is required.

$PE_{uncontrolled}$ = EF (lb/MMBtu) x Heat Input (MMBtu/yr)
= (0.0296 lb-VOC/MMBtu) x (124,845 MMBtu/yr)
= 3,700 lb-VOC/year

Since 3,700 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

The conditions demonstrating compliance with CAM are discussed on pages 85 through 87.

§64.3 - Monitoring Design Criteria

This section specifies the design criteria for the CAM system. Paragraph (a) (General criteria) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

As shown above, 10 full time spark-ignited IC engines each served by a 3 way catalyst are subject to CAM. The catalyst decreases NO_X, CO and VOC emissions by using a precious metal catalyst to promote the chemical reduction of NO_X to N_2, CO_2 and H_2O and the oxidation of CO and VOC to CO_2 and H_2O.

The facility has chosen to measure the inlet and outlet differential temperature on the catalytic converter as an indicator of emission control system performance. The differential temperature across the catalyst is an indication that the reaction is occurring on the catalyst bed.

Paragraph (b) *(Performance criteria)* requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected

Once a day, the facility's maintenance personnel will take differential temperature reading on the inlet and outlet of the catalytic converter. Sufficient data has been or will be collected for each engine operating in compliance to justify the once daily readings as representative.

- Verification procedures for startup of new monitoring equipment

- Quality assurance and control practices to ensure continuing validity of data

Annual source tests and monthly emissions monitoring with a portable analyzer ensure readings from the thermocouple are an ongoing satisfactory indicator of control system performance. Whenever a source test or monitoring data show the actual emission rate is 75% or more of the allowed emission rate, the catalyst is pulled from each engine and cleaned. In addition, each engine is serviced in accordance with the manufacturer's recommendations. After any service or repair is performed, a portable emissions analyzer is used to check that the emission levels are compliant.

- Data collection frequency and procedures

The facility is not currently required to measure the temperature differential on each engines exhaust. Since they are not currently required to read the temperature differential, the range of acceptable temperature differentials that demonstrate compliance with the appropriate emission limits will need to be established after the issuance of this renewed Title V operating permit.

The District will require the facility to establish the allowable temperature differential range that demonstrates continued compliance with the appropriate emission limits and then submit a minor modification application to incorporate that range within 12 months of the date of issuance of the renewed Title V operating permit.

Paragraph (c) (Evaluation factors) requires the owner or operator to take into account site specific factors in the design of the CAM system.

Annual source tests and monthly emissions monitoring with a portable analyzer ensure readings from the thermocouple are an ongoing satisfactory indicator of control system performance. Whenever a source test or monitoring data show the actual emission rate is 75% or more of the allowed emission rate, the catalyst is pulled from each engine and cleaned. In addition, each engine is serviced in accordance with the manufacturer's recommendations. After any service or repair is performed, a portable emissions analyzer is used to check that the emission levels are compliant.

(c) Evaluation factors. In designing monitoring to meet the requirements of this section, the owner or operator shall take into account site-specific factors including the applicability of existing monitoring equipment and procedures, the ability of the monitoring to account for process and control device operational variability, the reliability and latitude built into the control technology, and the level of actual emissions relative to the compliance limitation.

The proposed CAM plan utilizes an existing thermocouples serving each of these engines. Therefore, no additional factors need to be evaluated and the requirements of this section are satisfied. No further discussion is required.

(d) Special criteria for the use of continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS) or predictive emission monitoring system (PEMS)

A CEMS, COMS, or PEMS is not necessary or required for the subject emission units. Therefore, the requirements of this section are not applicable and no further discussion is required.

Therefore the conditions in the following table show compliance with this section:

Permit Unit(s)	Permit Condition(s)
Bundle B 171-5 through 175-5	33-38
Bundle C -400-12 & -411-12	26-31
Bundle D -434-5 & -435-5	34-39
-433	32-37

Wells:

S-1548-423-4: 300 THERMALLY ENHANCED EXISTING PRODUCTION WELLS AND EXISTING WELL TEST PRESSURE VESSELS NOT UTILIZED FOR PERMANENT GAS/LIQUID SEPARATION IN SOUTH BELRIDGE WITH EXISTING CASING LINES DISCHARGING ONLY TO EXISTING PRODUCED FLUID LINES DISCHARGING ONLY TO EXISTING VAPOR CONTROLLED SECTION 20 DEHYDRATION FACILITY EQUIPMENT WITH PRODUCED GAS PIPED TO EXISTING BELRIDGE GAS PLANT.

1) This unit contains fugitive emission limits for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1548-470-2: 8 CYCLIC STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

1) This unit contains fugitive emission limits for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

Flares:

S-1548-113-2: 584,318,750 BTU/HR EMERGENCY FLARE (LOST HILLS 1 LEASE)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1548-144-38: 504,000 GALLON FIXED ROOF CLARIFIER TANK 201A W/VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) & PIPING TO FIELD GAS SYSTEM OR AIR ASSISTED KALDAIR FLARE W/PLA-18 FLARE TIP

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1548-389-4: 223,125,000 MM BTU/HR LIMITED USE FLARE (WESTSIDE)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1548-424-3: 825 MMBTU/HR KALDAIR INDAIR MODEL I-15-H-VS EMERGENCY PRODUCED GAS FLARE WITH COANDA EFFECT FLARE TIP (COMPRESSOR STATION 49)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.

2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

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 is not requesting to use any model general permit templates for this Title V renewal project.

B. Requirements not Addressed by Model General Permit Templates

Aera is not requesting any new permit shields within this Title V renewal project. In addition, Aera is not requesting any changes to the existing permit shields already included in their Title V operating permit. Therefore, all of the existing permit shields will be maintained on the revised permit for this renewal project.

X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

XI. ATTACHMENTS

A. Draft Renewed Title V Operating Permit
B. Existing Title V Operating Permit and Implemented ATC's
C. Detailed Facility List
D. District Stringency Analysis

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley
Air Pollution Control District

FACILITY: S-1548-0-4 **EXPIRATION DATE:** 05/31/2006

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FACILITY-WIDE REQUIREMENTS

1. {4362} 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. {4363} 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. {4364} 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. {4365} 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. {4366} 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. {4367} 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. {4368} 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. {4369} 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

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

9. {4370} 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

10. {4371} 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. {4372} 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. {4373} 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. {4374} 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. {4375} 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. {4376} 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. {4377} 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. {4378} 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. {4379} 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. {4380} 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. {4381} 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. {4382} 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

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22. {4383} 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

23. {4384} 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. {4385} 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. {4386} 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. {4387} 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. {4388} 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. {4389} 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. {4390} 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. {4391} 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. {4392} 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. {4393} 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. {4394} 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

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34. {4395} 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. {4396} 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

36. {4397} 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. {4398} 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. {4399} 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. {4400} 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. {4401} 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. {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

42. {3321} 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 4409, 5.1.1] Federally Enforceable Through Title V Permit

43. {3322} For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

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44. {3323} For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

45. {3324} For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

46. {3325} Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit

47. {3326} Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2] Federally Enforceable Through Title V Permit

48. {3327} Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

49. {3328} Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit

50. {3329} An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a 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 line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit

51. {3330} A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit

52. {3331} A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit

53. {3332} A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

54. {3333} When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

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55. {3334} When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

56. {3335} When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

57. {3336} When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

58. {3337} When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

59. {3338} When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

60. {3339} When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

61. {3340} When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

62. {3341} For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit

63. {3342} For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit

64. {3343} All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit

65. {3344} Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit

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66. {3345} All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

67. {3346} All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit

68. {3347} All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit

69. {3348} All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit

70. {3349} All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit

71. {3350} The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

72. {3351} Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit

73. {3352} The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit

74. {3353} A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit

75. {3354} Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit

76. {3355} District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit

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77. {3356} The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

78. {3357} The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

79. {3358} The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

80. {3359} For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit

81. {3360} If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit

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82. {3361} For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit

83. {3362} All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

84. {3363} The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit

85. {3364} By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

86. {3365} The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit

87. {3366} Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

88. {3367} 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 4409, 6.2.3] Federally Enforceable Through Title V Permit

89. {3368} All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4] Federally Enforceable Through Title V Permit

90. {3369} All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit

91. {3370} The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit

92. {3371} The percent by volume liquid evaporated at 302 øF (150 øC) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit

93. {3372} The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit

94. {3373} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit

95. {3374} 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 4409, 6.3.6] Federally Enforceable Through Title V Permit

96. {3375} Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit

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

98. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4403, Sections 5.1, 5.3, and 6.3 (Amended February 16,1995). A permit shield is granted from these requirements. [District Rule 2520, 12.2] Federally Enforceable Through Title V Permit

99. This source meets the criteria for black oil per 40 CFR 63.761. Therefore, the requirements of 40 CFR Part 63, Subpart HH do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 12.2] Federally Enforceable Through Title V Permit

100. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin October 31 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-45-7 **EXPIRATION DATE:** 05/31/2006

SECTION: 28 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,730,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-471 WITH VAPOR RECOVERY SYSTEM WITH VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) AND PIPING TO FIELD GAS SYSTEM SHARED WITH S-1548-143 (TANK #T-470)

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. P/V vents shall be set to relieve at a pressure higher than required to activate vapor compressor. [District NSR Rule] Federally Enforceable Through Title V Permit

23. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Compressed vapors shall be sent to the field gas gathering system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Permittee shall maintain with the permit accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 1070] Federally Enforceable Through Title V Permit

26. All records required by this permit shall be maintained for a period of Five years and permittee shall make such records available for District inspection upon request. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

27. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. {979} Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

29. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, 25b, or as approved by District Rule 4623. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

30. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

31. The operator shall ensure that the vapor recovery system is functional and is operating in compliance with permit conditions at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-113-2

EXPIRATION DATE: 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
584,318,750 BTU/HR EMERGENCY FLARE (LOST HILLS 1 LEASE)

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PERMIT UNIT REQUIREMENTS

1. Gas flared shall not exceed 15,000,000 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Each quarter whenever the flare is combusting emergency releases of VOC for three (3) hours or more, the permittee shall perform a visible emissions inspection using EPA Method 22. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To show compliance compliance with the sulfur limits, the gas being flared shall be tested quarterly for sulfur content and higher heating value. [District Rule 2520, 9.3.2 and 4801] Federally Enforceable Through Title V Permit
4. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain records of emergency and non-emergency operation, hours of operation for flare maintenance and testing, and the amount of gas flared for a period of five years and make such records readily available for District inspection upon request. [District NSR Rule, District Rule 1070, and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. 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
7. 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
8. 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
9. 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
10. 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, 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, a copy of annual reports submitted to the APCO pursuant to Section 6.2 and effective on and after July 1, 2011, 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

12. 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

13. VOC emissions, 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 equation in District Rule 4311, Section 6.3.1. [District Rule 4311, 6.3.1] Federally Enforceable Through Title V Permit

14. 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

15. 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

16. 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

17. 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

18. The shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 in District Rule 4311. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

19. The operator 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. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

20. The operator of a flare 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. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

21. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit

22. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit

24. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9.4] Federally Enforceable Through Title V Permit

25. Formerly S-1512-1

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-115-7 **EXPIRATION DATE:** 05/31/2006

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SECTION: SW04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
450 BHP AJAX DPC450 CLEANBURN IC ENGINE POWERING COMPRESSOR UNIT #5, WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
2. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with a sulfur content of less than or equal to 0.017% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from IC engine shall not exceed any of the following: NOx (as NO2): 65 ppmv @ 15% O2; VOC: 750 ppmv @ 15% O2; and CO: 2000 ppmv @ 15% O2. [District Rule 4702, 5.1.1 and 2520] Federally Enforceable Through Title V Permit
7. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702, 6.3.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. For source testing, the following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
9. Source testing shall be District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
10. 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
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit

13. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702, 6.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702, 6.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801] Federally Enforceable Through Title V Permit

17. Particulate emissions shall not exceed, at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit

18. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least on a monthly basis (in which a source test is not performed) by conducting a self test using: EPA Method 7E or ARB Method 100 for NOx (ppmv) , EPA Method 10 or ARB Method 100 for CO (ppmv), and EPA Method 3 or 3A or ARB Method 100 for stack gas oxygen. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4702, 5.6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If either the NOx or CO concentrations corrected to 15% O2, as measured by the self testing, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 5.6.1 and 2520, 9.3.2] 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. 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 4702, 5.6.1] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) identification of testing equipment, (4) identification of testing personal, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4702, 5.6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. An engine operating log shall be maintained. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, preventative and corrective maintenance and modifications performed, monitoring data, compliance source test results and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

27. All records required by this permit, including source test results and monitoring data, shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4702, 2520, 9.5.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

29. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

30. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

31. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

32. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

33. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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34. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

35. Formerly S-1512-6

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-116-7 **EXPIRATION DATE:** 05/31/2006

SECTION: SW04 **TOWNSHIP:** 27S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
450 BHP AJAX DPC450 CLEANBURN I.C. ENGINE POWERING COMPRESSOR UNIT #6 WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
2. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with a sulfur content of less than or equal to 0.017% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from IC engine shall not exceed any of the following: NOx (as NO2): 65 ppmv @ 15% O2; VOC: 750 ppmv @ 15% O2; and CO: 2000 ppmv @ 15% O2. [District Rule 4702, 5.1.1 and 2520] Federally Enforceable Through Title V Permit
7. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702, 6.3.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. For source testing, the following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
9. Source testing shall be District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
10. 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
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit
13. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702, 6.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702, 6.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801] Federally Enforceable Through Title V Permit
17. Particulate emissions shall not exceed, at the point of discharge, 0.1 gr/dscf. [District Rule 4201] Federally Enforceable Through Title V Permit
18. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; 407 (Kern). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least on a monthly basis (in which a source test is not performed) by conducting a self test using: EPA Method 7E or ARB Method 100 for NOx (ppmv) , EPA Method 10 or ARB Method 100 for CO (ppmv), and EPA Method 3 or 3A or ARB Method 100 for stack gas oxygen. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4702, 5.6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If either the NOx or CO concentrations corrected to 15% O2, as measured by the self testing, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 5.6.1 and 2520, 9.3.2] 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. 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 4702, 5.6.1] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) identification of testing equipment, (4) identification of testing personal, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4702, 5.6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. An engine operating log shall be maintained. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, preventative and corrective maintenance and modifications performed, monitoring data, compliance source test results and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

27. All records required by this permit, including source test results and monitoring data, shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4702, 2520, 9.5.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

29. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

30. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

31. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

32. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

33. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

35. Formerly S-1512-7

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-120-16 **EXPIRATION DATE:** 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
126,000 GALLON CONE ROOF REJECT OIL TANK F-3005 WITH VAPOR CONTROL COMPRESSOR, COOLERS AND LIQUID KNOCKOUTS, SAND BASIN, AND 3.3 MMBTU/HR PERMIT EXEMPT HEATER TREATER

PERMIT UNIT REQUIREMENTS

1. Total VOC fugitive emission rate from the tank (S-1548-120) and the associated vapor control system shall not exceed 44.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit
3. This vapor control system is shared with permits S-1548-121, '122, '126, '385, '386, '420 and '443 and a permit exempt 3.3 MMBtu/hr heater treater. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a leak free (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Tanks gauging and/or sampling devices shall be equipped with leak free(as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
6. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, valves associated with the vapor recovery system, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. VOC destruction device(s) serving the vapor recovery system shall reduce the inlet VOC emissions by at least 95% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
13. Except for open flame flares, the efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 25, except when the outlet concentration must be below 50 ppm in order to met the standard, in which case Method 25a may be used. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Except for periods of tank cleaning the vapor recovery system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 12.2] Federally Enforceable Through Title V Permit
18. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 12.2] Federally Enforceable Through Title V Permit
19. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
20. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
21. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
22. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule & 4623] Federally Enforceable Through Title V Permit
24. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

27. Formerly S-1512-11

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-121-7

EXPIRATION DATE: 05/31/2006

DRAFT

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED CONE ROOF LACT TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

26. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit

28. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

29. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

30. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit

32. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

35. Formerly S-1512-12

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-122-6 **EXPIRATION DATE:** 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3002 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, and -420. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

23. All piping, fittings, valves associated with the vapor recovery system, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. {972} Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

27. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit

28. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit

30. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 12.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

35. Formerly S-1512-13 [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-126-6 **EXPIRATION DATE:** ~~05~~/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED ROOF CONE BOTTOM CLARIFIER TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

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PERMIT UNIT REQUIREMENTS

1. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tanks gauging and/or sampling devices shall be equipped with leak free (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. {1743} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
16. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
17. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
18. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
20. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
23. Formerly S-1512-18

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-134-5

EXPIRATION DATE: 05/31/2006

SECTION: NW02 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
625 MMBTU/HR LIMITED USE FLARE

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PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (120.0 lb/day, 713 lb/yr), SOx (as SO2): 0.07261 lb/MMBtu (1089.2 lb/day, 6474 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (1020.0 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (945.0 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (5550.0 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
3. Flare shall be equipped with two automatic, electronic pilots (model KEP-100 or equivalent) and gas flow detector for startup of automatic ignitors. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
4. Flare shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Flare inlet pressure shall be no less than 6 psig. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
6. Total quantity of produced gas combusted in flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Sulfur content of produced gas combusted shall not exceed 430 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall measure and record produced gas sulfur content and calculate SO2 emissions at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit
11. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-140-5 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
THREE 800 HP, AND ONE 1,000 HP ELECTRIC MOTOR DRIVEN FUEL GAS COMPRESSORS, EACH WITH A FUEL GAS & A SURGE DRUM AND ASSOCIATED PIPING. (COMPRESSOR STATION #49).

DRAFT

PERMIT UNIT REQUIREMENTS

1. VOC emissions shall not exceed 29.1 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall demonstrate compliance with daily VOC emission limit on annual basis by listing equipment type, number of components, appropriate emission factors from Table 2-4 of the U.S. EPA document "Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017)" or other District approved emission factors, and the total daily emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-143-5 **EXPIRATION DATE:** 05/31/2006

SECTION: SW28 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,730,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK T-470 (ALSO PERMITTED AS S-1547-384 IN THE HEAVY OIL SS) WITH SHARED VAPOR RECOVERY SYSTEM DESCRIBED ON S-1548-45

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. {979} Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

23. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

24. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fugitive VOC emissions from components associated with vapor recovery system shared between this permit unit and permit unit S-1548-45 shall not exceed 59.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall maintain with the permit accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Tank vapors shall only vent through vapor collection system shared with S-1548-45. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Permittee shall maintain accurate records of liquid temperature and Reid vapor pressure. Such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule, 2520, 9.4.2 and 4623] Federally Enforceable Through Title V Permit

30. Vapor control efficiency shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

33. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-144-38 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
504,000 GALLON FIXED ROOF CLARIFIER TANK 201A W/ VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) & PIPING TO FIELD GAS SYSTEM OR AIR ASSISTED KALDAIR FLARE W/PLA-18 FLARE TIP

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall consist of vapor piping from vessels and tanks S-1548-144, '145, '146, '147, '148, '149, '418, '419, '428, '429, '439, '440, '441, '442, '463, '476, and '-478 through '-484, '486 through '489, '497, '498, '501, '503, and '504. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Except during maintenance activities and power outages, operator shall continuously monitor the discharge pressure of the vapor recovery system to ensure its proper operation. The monitoring system shall be programmed to alarm the operator when the discharge pressure increases to where the flare activates. [District Rule 2201 and 40 CFR 60.113b(c)(1)(ii)] Federally Enforceable Through Title V Permit
4. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control systems. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The vapor control system shall be capable of reducing VOC emissions by at least 99% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total VOC emission rate from S-1548-144 (excluding the flare), S-1548-145, S-1548-146, S-1548-147, S-1548-148, S-1548-149, S-1548-428, S-1548-429, S-1548-439, S-1548-440, S-1548-441, and S-1548-442 shall not exceed 161.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a fixed roof with no holes or openings [District Rule 2201] Federally Enforceable Through Title V Permit
9. Collected vapors shall be compressed to the field gas system or incinerated in the flare. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Flare shall be operated with a flame present at all times. Presence of a flame shall be monitored using a thermocouple or equivalent device. Kaldair Inc.'s KEP-100 Ignition System is an approved monitoring device. [District Rule 4001 and 4311] Federally Enforceable Through Title V Permit
11. Flare pilot fuel shall be LPG or natural gas with sulfur content less than 0.75 grains/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)] Federally Enforceable Through Title V Permit

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

13. Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001 40CFR 60.115b(d)(3)] Federally Enforceable Through Title V Permit

14. Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rules 2201 and 4001] Federally Enforceable Through Title V Permit

15. Flare shall be equipped with flare gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Net heating value of the gas being combusted by flare shall be 300 Btu/scf or greater. [District Rule 4001 and 4311] Federally Enforceable Through Title V Permit

17. Total sulfur concentration of gas incinerated in flare shall not exceed 2000 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

18. Maximum amount of gas combusted shall not exceed any of the following: 5,000,000 scf/day, 25 MMscf/quarter, 100 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NOx (as NO2): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Permittee shall measure sulfur content of gas incinerated in flare at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

21. Permittee shall keep accurate records of daily, quarterly, and annual quantity of gas combusted. Such records shall be retained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

22. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once annually 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 Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Any tank gauging or sampling device on a tank vented to a vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging and sampling. Leak-free shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated to methane in accordance with EPA method 21. Emissions in excess of this limit shall be a violation of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

24. All piping valves and fittings associated with the tank and vapor control system shall be constructed and maintained in a leak-free condition. "Leak-free" shall be defined as emitting no more that 10,000 ppmv of methane in accordance with EPA Method 21. Emissions in excess of this limit shall be a violation of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

25. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit

26. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)]] Federally Enforceable Through Title V Permit

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27. If any of the tank and vapor control system 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. [40 CFR 60.112b(a)(3)(i)]] Federally Enforceable Through Title V Permit

28. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a) Eliminate the leak within 8 hours after detection; or b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c) Eliminate the leak within 48 hours after minimization; and d) In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit

29. For leaks >10,000 ppmv, leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

30. For leaks >10,000 ppmv, if a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

31. For leaks >10,000 ppmv, any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

32. 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

33. 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

34. 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

35. 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

36. 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

37. 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, 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, a copy of annual reports submitted to the APCO pursuant to Section 6.2 and effective on and after July 1, 2011, 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

38. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

39. 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

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40. 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

41. 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

42. 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

43. VOC emissions, 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 equation in District Rule 4311, Section 6.3.1. [District Rule 4311, 6.3.1] Federally Enforceable Through Title V Permit

44. 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

45. 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

46. 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

47. 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

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48. Operator shall maintain an inspection log containing the following 1) Number and type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 1070, 2201, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

49. The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

50. 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

51. 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

52. 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]

53. The operator shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 in District Rule 4311. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

54. The operator 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. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

55. The operator of a flare 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. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

56. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit

57. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9.2] Federally Enforceable Through Title V Permit

58. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

59. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9.4] Federally Enforceable Through Title V Permit

60. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or as approved by District Rule 4623. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

61. The operator shall ensure that the vapor recovery system is functional and is operating in compliance with permit conditions at all times. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

62. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21 [40 CFR 60.112b(a)(3)(i)]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-145-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T201B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201]

23. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-146-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T202A WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit

23. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Emissions shall not exceed that listed in S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-147-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T202B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit

23. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Emissions shall not exceed that listed in S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-148-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
40,000 BBL FIXED ROOF STORAGE TANK #T211 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201]

23. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. {992} The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-149-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,000 BBL CRUDE OIL SKIM TANK #T242 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20:

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit

23. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit

24. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. {982} Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {983} The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. {984} The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-171-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

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EQUIPMENT DESCRIPTION:
1,215 BHP WAUKESHA MODEL L-5790 GSI NATURAL GAS-FIRED IC ENGINE (SERIAL # C-12312/1) WITH 3-WAY CATALYST AND AIR/FUEL RATIO CONTROLLER DRIVING A GAS COMPRESSOR (MID BELRIDGE COMPRESSOR STATION #26)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 3.9 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

20. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-172-5

EXPIRATION DATE: 05/31/2006

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SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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

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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

20. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-173-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1,478 HBP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

20. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-174-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

20. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-175-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

20. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

35. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-178-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
SULFATREAT FUEL GAS SCRUBBING SYSTEM WITH LIQUID KNOCKOUT VESSEL AND CONTACTOR VESSEL

DRAFT

PERMIT UNIT REQUIREMENTS

1. Fugitive emission components in gas service shall not exceed: 35 valves, 40 connectors, 130 flanges, and 15 open ended lines without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Fugitive emission components in water/oil service shall not exceed: 40 valves, 20 connectors, 140 flanges, and 10 open ended lines without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All vessel hatches and openings shall remain closed during operation of H2S scrubber. [District NSR Rule, 4102] Federally Enforceable Through Title V Permit
4. No components (i.e., valves, flanges, etc.) associated with the Sulfa treat unit shall be the source of any leak greater than 10,000 ppmv (as methane) when measured at a distance no greater than 1 cm from the potential source per EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Influent and effluent gas streams of sulfa treat system shall be monitored at least monthly for H2S content of effluent gas to determine when recharging is required. [District NSR Rule] Federally Enforceable Through Title V Permit
6. During recharging of the sulfur scrubber, untreated vapors shall not be introduced into the fuel system or vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The following test method shall be used for fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. Record of H2S content of effluent gas shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. {918} All records of required monitoring data and support information shall be maintained for at least five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-385-7 **EXPIRATION DATE:** 05/31/2006

SECTION: 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit

25. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

26. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

27. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit

29. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 96.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

31. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

32. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

33. Formerly S-1130-32

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-386-7 **EXPIRATION DATE:** 05/31/2006

SECTION: 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit

25. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

26. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

27. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit

29. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 96.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

31. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

32. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

33. Formerly S-1130-33

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-389-4 **EXPIRATION DATE:** 05/31/2006

SECTION: 15 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
223,125,000 BTU/HR COANDA EFFECT SAFETY FLARE (WESTSIDE)

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PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (42.8 lb/day, 713 lb/yr), SOx (as SO2): 0.3377 lb/MMBtu (1808.4 lb/day, 30,109 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (364.1 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (337.4 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (1981.4 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
3. Total quantity of produced gas combusted in flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Flares shall be operated with a pilot flame present at all times, and kept in operation when emissions may be vented to them. Except during power outages and planned maintenance, 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. [District Rules 2520, 9.4.2 and 4311] Federally Enforceable Through Title V Permit
6. Only propane or natural gas shall be used to fuel the flare pilot. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Sulfur content of produced gas combusted shall not exceed 2000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall measure and record sulfur content of flared gas at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit
10. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

12. 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

13. 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

14. 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

15. 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

16. On and after July 1, 2011 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

17. 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

18. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

19. 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

20. 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

21. 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

22. 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

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23. VOC emissions, 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 equation in District Rule 4311, Section 6.3.1. [District Rule 4311, 6.3.1] Federally Enforceable Through Title V Permit

24. 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

25. 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

26. 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

27. 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

28. 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

29. 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

30. 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]

31. The shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 in District Rule 4311. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

32. The operator 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. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

33. The operator of a flare 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. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit

35. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9.2] Federally Enforceable Through Title V Permit

36. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit

37. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9.4] Federally Enforceable Through Title V Permit

38. Formerly S-1130-89 [District Rule 2010] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-400-12 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

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EQUIPMENT DESCRIPTION:
498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
2. The engine shall be fired on natural gas or field gas with a sulfur content less than 1.0 grains/100 dscf only. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
4. Emissions of oxides of nitrogen (NOx) shall be reduced by 96% across catalytic converter or emissions of NOx shall not exceed 25 ppmv on a dry basis corrected to 15% oxygen. [District Rule 4702]
5. To demonstrate compliance with Rule 4702 requirement of 90 percent NOx reduction, percent reduction shall be calculated as follows: 1) The operator shall document the unit's typical operating parameters, loading, and duty cycle. 2) The documented conditions shall be repeated at each successive post-control source test. 3) Source test results will be tabulated to compare uncontrolled and post-controlled emission rates and to verify percent reduction limit. [District Rule 4702, 5.3.2] Federally Enforceable Through Title V Permit
6. Emissions of carbon monoxide (CO) in exhaust shall not exceed 2000 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
7. Emissions of volatile organic compounds (VOC) in exhaust averaged over not less than 15 consecutive minutes shall not exceed 250 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
8. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
10. 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
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit

13. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

19. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

20. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

23. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

27. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

28. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

32. An engine operating log shall be maintained. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, preventative and corrective maintenance and modifications performed, monitoring data, compliance source test results and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. Fugitive components associated with the SulfaTreat sulfur removal system shall not exceed the following: 16 flanges, 24 threaded connectors, 8 valves, 2 pressure relief valves, and 4 other. [District Rule 2201] Federally Enforceable Through Title V Permit

35. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

37. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

38. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

39. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

40. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. Note: Formerly S-1130-146.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-411-12 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

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PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
2. The engine shall be fired on natural gas or field gas with a sulfur content less than 1.0 grains/100 dscf only. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
4. Emissions of oxides of nitrogen (NOx) shall be reduced by 96% across catalytic converter or emissions of NOx shall not exceed 25 ppmv on a dry basis corrected to 15% oxygen. [District Rule 4702]
5. To demonstrate compliance with Rule 4702 requirement of 90 percent NOx reduction, percent reduction shall be calculated as follows: 1) The operator shall document the unit's typical operating parameters, loading, and duty cycle. 2) The documented conditions shall be repeated at each successive post-control source test. 3) Source test results will be tabulated to compare uncontrolled and post-controlled emission rates and to verify percent reduction limit. [District Rule 4702, 5.3.2] Federally Enforceable Through Title V Permit
6. Emissions of carbon monoxide (CO) in exhaust shall not exceed 2000 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
7. Emissions of volatile organic compounds (VOC) in exhaust averaged over not less than 15 consecutive minutes shall not exceed 250 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
8. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
10. 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
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit

13. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

19. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

20. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

23. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

27. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

28. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

32. An engine operating log shall be maintained. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, preventative and corrective maintenance and modifications performed, monitoring data, compliance source test results and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

35. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

37. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

38. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

39. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

40. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. Note: Formerly S-1130-157.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-411-12 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

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EQUIPMENT DESCRIPTION:
498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
2. The engine shall be fired on natural gas or field gas with a sulfur content less than 1.0 grains/100 dscf only. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
4. Emissions of oxides of nitrogen (NOx) shall be reduced by 96% across catalytic converter or emissions of NOx shall not exceed 25 ppmv on a dry basis corrected to 15% oxygen. [District Rule 4702]
5. To demonstrate compliance with Rule 4702 requirement of 90 percent NOx reduction, percent reduction shall be calculated as follows: 1) The operator shall document the unit's typical operating parameters, loading, and duty cycle. 2) The documented conditions shall be repeated at each successive post-control source test. 3) Source test results will be tabulated to compare uncontrolled and post-controlled emission rates and to verify percent reduction limit. [District Rule 4702, 5.3.2] Federally Enforceable Through Title V Permit
6. Emissions of carbon monoxide (CO) in exhaust shall not exceed 2000 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
7. Emissions of volatile organic compounds (VOC) in exhaust averaged over not less than 15 consecutive minutes shall not exceed 250 ppm on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
8. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
10. 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
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit

13. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

19. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

20. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

23. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

27. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times; this will be accomplish by conducting an annual source test, and monthly emissions testing using a potable analyzer. [40 CFR 64] Federally Enforceable Through Title V Permit

28. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

29. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

30. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

31. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

32. An engine operating log shall be maintained. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, preventative and corrective maintenance and modifications performed, monitoring data, compliance source test results and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

35. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

36. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

38. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

39. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

40. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. Note: Formerly S-1130-157.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-418-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
8,500 BBL WATER STORAGE TANK T-231A SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit
21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit
22. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
23. Fugitive VOC emission rate shall not exceed 4.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
24. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit
25. Tank shall vent to vapor control system listed in S-1548-144 [District NSR Rule] Federally Enforceable Through Title V Permit
26. Liquid stored in tank shall have a maximum VOC content of up to 10% by weight as determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E260-85, may be excluded from the total concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. {941} The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. Records of the VOC content of liquid stored in the tank must be kept for a period of 5 years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
30. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-419-6

EXPIRATION DATE: 05/31/2006

DRAFT

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
8,500 BBL WATER STORAGE TANK T-231B SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit

23. Tank shall vent to vapor control system listed in S-1548-144 [District NSR Rule] Federally Enforceable Through Title V Permit

24. Liquid stored in tank shall have a maximum VOC content of up to 10% by weight as determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E260-85, may be excluded from the total concentration. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Fugitive VOC emission rate shall not exceed 5.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. {941} The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Records of the VOC content of liquid stored in the tank must be kept for a period of 5 years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

30. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-420-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3004 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. All piping, fittings, valves associated with the vapor recovery system, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. {972} Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

26. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit

27. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit

29. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 12.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

32. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

33. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-423-4 **EXPIRATION DATE:** 05/31/2006

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EQUIPMENT DESCRIPTION:
300 THERMALLY ENHANCED EXISTING PRODUCTION WELLS AND EXISTING WELL TEST PRESSURE VESSELS NOT UTILIZED FOR PERMANENT GAS/LIQUID SEPARATION IN SOUTH BELRIDGE WITH EXISTING CASING LINES DISCHARGING ONLY TO EXISTING PRODUCED FLUID LINES DISCHARGING ONLY TO EXISTING VAPOR CONTROLLED SECTION 20 DEHYDRATION FACILITY EQUIPMENT WITH PRODUCED GAS PIPED TO EXISTING BELRIDGE GAS PLANT.

PERMIT UNIT REQUIREMENTS

1. Well casing valves shall remain closed or connected to production lines at all times except during periods of actual service or repair as defined in Rule 4401. [District Rule 2201 and 4401] Federally Enforceable Through Title V Permit
2. All produced fluids from any well associated with this operation shall be handled only in existing closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
3. All produced fluids from these thermally enhanced production wells shall be introduced only to LOTS (identified in S-1548-144-8), existing well test pressure vessels not utilized for permament gas/liquid separation and the existing Section 20 dehydration facility (principally, S-1548-144 through '-149 but including associated equipment, i.e., Wemco, ISF units, drain tanks, etc.) [District Rule 2201] Federally Enforceable Through Title V Permit
4. Vapor separated from produced fluids at the Section 20 dehydration facility shall be routed to the existing Belridge gas plant (S-1543-4) or to the emergency flare (S-1548-144). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Thermally enhanced production wells covered by this permit shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of these wells. A copy of the written instructions shall be submitted to the District prior to implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Except for polish rods, no more than 15 components shall have leaks in excess of 10,000 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 from valves, flanges, connectors and other fugitive emission components associated with thermally enhanced oil production wells in this TEOR operation. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All polish rod stuffing boxes shall be inspected and screened for leaks using EPA method 21 at least quarterly. If less than two percent of the polish rod stuffing boxes are found to leak during each of five consecutive quarterly inspections, the inspection frequency may be changed from quarterly to annually. If any annual inspection shows that more than 2 percent of the polish rod stuffing boxes are leaking, then quarterly inspections shall be resumed. Any polish rod leaking greater than 10,000 ppmv, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA method 21 or leaking at a rate of greater than 3 drops of liquid per minute shall be repaired consistent with Rule 4403 section 5.3. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Components except polish rods associated with this operation shall be screened and inspected at least quarterly with a minimum of 25% of the components inspected each quarter. Any leak greater than 5,000 ppm, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of grater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. [District Rule 2201]] Federally Enforceable Through Title V Permit
9. All components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District Rule 2201]] Federally Enforceable Through Title V Permit
10. Component screening shall be performed in accordance with EPA reference Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit
14. All other components such as diaphragms, dump arms, instruments and meters shall be monitored at all points of possible emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Total uncontrolled VOC emissions from all wells shall be reduced by at least 99%. [District Rule 2201 & 4401] Federally Enforceable Through Title V Permit
16. Fugitive VOC emission rate from all components associated with this operation shall not exceed 132.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emission rate listed above does not include the existing well test pressure vessels at the existing LOTS sites. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a current list of all thermally enhanced production wells associated with this operation, shall update the list whenever a well is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall maintain a current list of all pressure vessels not utilized for permanent gas/liquid separation associated with this operation, shall update the list whenever a vessel is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. Permittee shall maintain for a period of five years, accurate records of fugitive inspection component counts, leak screening values in excess of 10,000 ppm, and shall, as approved by the District, calculate fugitive emissions using February 1999 CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. 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

22. 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

23. 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

24. 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

25. 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

26. 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

27. 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

28. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. 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

30. 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

31. 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

32. 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

33. 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

34. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. 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

38. 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 4 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, 5.9.4] Federally Enforceable Through Title V Permit

39. 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

40. 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

41. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. 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

43. 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

44. 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

45. 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

46. 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

47. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

48. VOC content shall be 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

49. 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

50. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

51. 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

52. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

53. In accordance with the approved 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

54. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.3.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-424-3 **EXPIRATION DATE:** 05/31/2006

SECTION: SW35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
825 MMBTU/HR KALDAIR INDAIR MODEL I-15-H-VS LIMITED USE FLARE WITH COANDA EFFECT FLARE TIP (COMPRESSOR STATION 49)

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PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (158.4 lb/day, 713 lb/yr), SOx (as SO2): 0.07262 lb/MMBtu (1437.7 lb/day, 6474 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (1346.4 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (1247.4 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (7326.0 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
3. Sulfur content of produced gas combusted shall not exceed 430 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Flare shall be equipped with continuous pilot fired solely on propane or natural gas. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
6. Total quantity of produced gas combusted in flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall measure and record sulfur content of flared gas at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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

13. 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

14. 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

15. 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

16. 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, 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

17. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

18. 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

19. 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

20. 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

21. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. VOC emissions, 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 equation in District Rule 4311, Section 6.3.1. [District Rule 4311, 6.3.1] Federally Enforceable Through Title V Permit

23. 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

24. 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

25. 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

26. 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

27. 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 by 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

28. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. 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

30. 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]

31. The shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 in District Rule 4311. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

32. The operator 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. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit

33. The operator of a flare 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. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit

34. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit

35. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9.2] Federally Enforceable Through Title V Permit

36. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit

37. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9.4] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-426-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 400 HP GE ELECTRIC MOTOR - STATION #26

DRAFT

PERMIT UNIT REQUIREMENTS

See facility-wide requirements for permit conditions applicable to this permit unit.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-427-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 800 HP GE ELECTRIC MOTOR - STATION #50

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PERMIT UNIT REQUIREMENTS

See facility-wide requirements for permit conditions applicable to this permit unit.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-428-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
617 BBL INDUCED STATIC FLOTATION CELL V-240 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

DRAFT

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained leak free (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

DRAFT

PERMIT UNIT: S-1548-429-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
140 BBL CRUDE OIL PROCESS DRAIN VESSEL V-244 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-433-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf (15 ppmv). [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Permittee shall comply with all applicable provisions of District Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit

14. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit

15. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

22. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] 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 Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

25. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

26. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

27. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

28. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

29. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

33. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

34. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

38. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

39. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

40. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

41. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-434-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

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PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur content concentration (as H2S) not exceeding 0.25 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The engine shall only burn natural gas with total sulfur content not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit

16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. District witnessed or approved compliance source testing for NOx, CO, and VOC emission limits shall be conducted on all engines not less than once every 24 months. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit

18. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

19. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

27. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

28. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

29. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

30. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

31. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

38. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

39. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

40. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

41. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

48. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

49. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-435-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1,680 HP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur content concentration (as H2S) not exceeding 0.25 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The engine shall only burn natural gas with total sulfur content not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit
16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. District witnessed or approved compliance source testing for NOx, CO, and VOC emission limits shall be conducted on all engines not less than once every 24 months. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
18. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
19. 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
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
22. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

27. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

28. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

29. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

30. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

31. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall record the inlet and outlet differential temperature on the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. The operator shall establish an outlet differential temperature range on the catalytic converter that indicates that the control device(s) on this engine is operating properly at all times by conducting an annual source test, and monthly emissions testing using a potable analyzer. In order to establish the outlet differential temperature range for the catalyst the facility must also demonstrate the correlation between the catalyst outlet differential temperature range and emission rates. [40 CFR 64] Federally Enforceable Through Title V Permit

36. The operator shall submit an application to incorporate the outlet differential temperature range on the catalytic converter established for this engine within 30 days of MONTH DAY, YEAR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

37. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit

38. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit

39. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

40. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

41. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

42. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

43. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

44. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

45. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

46. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

47. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

48. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-439-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201A WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-440-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201B WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

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PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-441-6

EXPIRATION DATE: 05/31/2006

DRAFT

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201C WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained leak free(as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-442-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201D WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained leak free (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-443-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA. BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3005 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

DRAFT

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor recovery system or vapor control device for at least 24 hours such that it collects the vapors from the vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
3. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from components shall not exceed 20.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-444-4 **EXPIRATION DATE:** 05/31/2006

SECTION: SE 19 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
29,400 GALLON FREE WATER KNOCKOUT VESSEL (V-300) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-172, '-173, '-174, '-175, AND '-427) AND CONNECTED TO S-1547-1079 CASING VENT VAPOR RECOVERY AND CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The interior of the vessel may be cleaned once per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Collected vapors shall be piped to the gas gathering system or to S-1547-1079 casing vent vapor recovery and control system, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from components shall not exceed 45.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-445-2 **EXPIRATION DATE:** 05/31/2006

SECTION: SE 12 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
42,300 GALLON FREE WATER KNOCKOUT VESSEL (V-100) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-171 AND '-426)

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PERMIT UNIT REQUIREMENTS

1. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor recovery system or vapor control device for at least 24 hours such that it collects the vapors from the vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Collected vapors shall be piped to the gas gathering system, except during periods of vessel interior cleaning. [District Rule 2201]
3. The interior of the vessel may be cleaned once per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from components shall not exceed 45.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

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PERMIT UNIT: S-1548-451-3 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION APPROVED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS IN THE LIGHT OIL WESTERN STATIONARY SOURCE UTILIZING UP TO 5 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS, FLEXIBLE PIPING, AND STINGER-TYPE INJECTION FITTINGS ON PRODUCED GAS PIPELINES

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Permittee shall notify the SJVUAPCD of each location at which an H2S scavenger chemical storage and injection operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Chemical storage and injection operations shall not be located within 1000 feet of a school. [District Rule 4102]
4. Each chemical storage tank shall have a maximum rated capacity of 500 gallons or less and up to eight injection fittings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit exempt tanks with a capacity of 250 gallons or less where the actual storage temperature does not exceed 150 deg F may be used to store H2S scavenger chemical. [District Rule 2020] Federally Enforceable Through Title V Permit
6. The maximum throughput of each chemical storage tank shall not exceed 200 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. True vapor pressure of materials stored in each chemical tank shall not exceed 3.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Total VOC emissions from all H2S scavenger injection equipment shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. On a monthly basis, to determine compliance with daily throughput limits, permittee shall maintain accurate records of average daily throughput for each tank based on purchase records. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Permittee shall maintain accurate fugitive component counts and resultant emissions calculated using Table 2-4 of U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Accurate records of the dates and amounts of chemical deliveries for each chemical injection site and fugitive component counts shall be retained and made available for District inspection upon request for a period of 5 years. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Operator shall keep records of the true vapor pressure of the chemical stored in the tank. These records shall include a laboratory analysis for TVP according to the methods described in District Rule 4623, Section 6.4 (Amended 12/20/01), MSDS which lists the true vapor pressure, or environmental data sheet which lists the true vapor pressure. Such records shall be made readily available for District inspection upon request for a period of 5 years. [District Rule 4623] Federally Enforceable Through Title V Permit

13. Injection of scavenging chemicals shall not result in an increase in air contaminant or odorous emissions at downstream production handling facilities or wastewater separators, containers, loadouts, or disposal sites. [District Rule 2010] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-463-2 **EXPIRATION DATE:** 05/31/2006

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EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201E WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained leak free (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. VOC emission rate from components shall not exceed 24.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

12. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-470-2

EXPIRATION DATE: ~~05~~/31/2006

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EQUIPMENT DESCRIPTION:
8 CYCLIC STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. All produced fluids from any well associated with this operation shall be handled only in existing closed and vapor controlled production equipment with a control efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Cyclic wells covered by this permit shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of these wells. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Fugitive emissions from all components associated with this cyclic well operation shall not exceed 30.7 lb-VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. All components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil, heavy oil, and water/oil. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
6. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
8. All other components such as diaphragms, dump arms, instruments and meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Permittee shall maintain a current list of all cyclic wells associated with this operation, shall update the list whenever a well is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. 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

12. 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

13. 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

14. 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

15. 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

16. 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

17. 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

18. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. 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

20. 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

21. 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

22. 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

23. 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

24. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit

25. 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

26. 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

27. 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

28. 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

29. 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

30. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

31. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. 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

33. 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

34. 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

35. 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

36. 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

37. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph 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

38. 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

39. 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

40. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. 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
42. 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
43. 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
44. 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
45. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-475-3

EXPIRATION DATE: 05/31/2006

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EQUIPMENT DESCRIPTION:
LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.24. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Operation shall include one gas/liquid separator pressure vessel at LOTS #L152. [District Rule 2201] Federally Enforceable Through Title V Permit
3. LOTS #L148 and L2340 operations shall each include one gas/liquid separator pressure vessel. [District Rule 2010] Federally Enforceable Through Title V Permit
4. LOTS #L140, L143, L145, L149, L150, L151, LX840, MR40, MR42, and L1540 operations shall each include two existing gas/liquid separator pressure vessels. [District Rule 2010] Federally Enforceable Through Title V Permit
5. LOTS #L144, L147, and LX941operations shall each include three gas/liquid separator pressure vessels. [District Rule 2010] Federally Enforceable Through Title V Permit
6. Fugitive emissions from components attached to LOTS site #L152 vessel shall not exceed 0.9 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. LOTS site #L152 shall be designed and maintained to vent only to the gas gathering system, except during periods of vessel cleaning. [District NSR Rule] Federally Enforceable Through Title V Permit
8. LOTS site #L152 vessel shall remain closed or connected to production lines at all times except during periods of sampling or maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-476-2 **EXPIRATION DATE:** 05/31/2006

SECTION: 20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
55,000 GALLON (12 FT DIAMETER X 65 FT SHELL LENGTH) FREE WATER KNOCKOUT VESSEL V-201F WITH VAPOR CONTROL LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.24. [District Rule 4623] Federally Enforceable Through Title V Permit
2. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained gas-tight, except during periods of vessel cleaning. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
3. Vessel shall be designed and maintained to vent only to the gas gathering system or the flare (S-1547-144), except during periods of vessel cleaning. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The FWKO shall be equiped with a control valve on its vapor-out line which shall be set at a sufficient pressure to prevent the backflow of tank vapors into the FWKO vessel. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Except during periods of vapor control system maintenance, and tank cleaning, vapor collection system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 24.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Document -453/R-95-017, Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, emission factors, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
13. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Permittee shall notify the District Compliance Division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
17. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Upon reintroducing crude oil/water to the tank, the vapor control system shall be reactivated and pressure relief valves closed. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
21. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
22. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-477-3

EXPIRATION DATE: 05/31/2006

EQUIPMENT DESCRIPTION:
LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (BELRIDGE)

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PERMIT UNIT REQUIREMENTS

1. Operation shall include one existing gas/liquid separator pressure vessel each at the following sites: LOTS #1-3, 2-1, 2-3, 2-4, 2-19, 3-6A, 3-10, 0116, 0122, 0155, 0213, 0233, 0244, 0253, 0277, 1278, 1817, 1827, 2922, 2932, 2955, 2965, 3324, 3331, 3344, 3362, 3364, 3375, 3417, 3435, 3447, 3534, 3548, 3549, 3550, 3657, fugitive VOC emission rate listed below does not include the existing pressure vessels at the sites identified in this condition. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Operation shall include two existing gas/liquid separator pressure vessels each at the following sites: LOTS #1383, 2018, 2764, 2816, 2944, 2987, and 3535. Fugitive VOC emission rate listed below does not include the existing pressure vessels at the sites identified in this condition. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Operation shall include one gas/liquid separator pressure vessel at the site LOTS #1231. The fugitive VOC emissions from the separator vessel shall not exceed 0.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The number of components attached to the separator at LOTS site #1231 shall not exceed the following: Gas Service - 1 pressure relieve valve and three flanges; Liquid Service - 1 valve and 6 flanges. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-478-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240B VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All piping valves and fittings shall be constructed and maintained in a leak free condition, except during periods of vessel interior cleaning or inspection. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.24. [District Rule 4623] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-479-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240C VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.24 [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All piping valves and fittings shall be constructed and maintained in a leak free condition, except during periods of vessel interior cleaning or inspection. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-480-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240D VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.24. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
3. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-481-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240E VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.24. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit

20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-482-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Only water with a maximum VOC content of 35 milligram/liter shall be placed or stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
2. VOC content of the water stored or placed in this tank shall be determined annually by sample analysis using one of the approved methods listed in Rule 1020 or other District approved method. [District Rules 1020 and 4623] Federally Enforceable Through Title V Permit
3. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. All piping, valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. [District NSR Rule] Federally Enforceable Through Title V Permit
4. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When in service, tank shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the tank from the vapor control system, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the tank. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District NSR Rule] Federally Enforceable Through Title V Permit
9. The facility operator upon detection of a component having a reading greater than 7,500 ppmv shall record the reading for that component and affix a weatherproof readily visible tag bearing the date on which the reading is detected. The tag shall remain in place until the component is repaired, reinspected and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Leak rate in ppmv; 3) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after returning the tank to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

20. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain a record of the lab analysis, sampling date and VOC content of the water in milligrams per liter. [District Rule 2080] Federally Enforceable Through Title V Permit

25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-483-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Only water with a maximum VOC content of 35 milligram/liter shall be placed or stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
2. VOC content of the water stored or placed in this tank shall be determined annually by sample analysis using one of the approved methods listed in Rule 1020 or other District approved method. [District Rules 1020 and 4623] Federally Enforceable Through Title V Permit
3. Tank gauging or sampling devices shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. All piping, valves and fittings shall be constructed and maintained in a leak free condition, except during periods of vessel interior cleaning or inspection. [District NSR Rule] Federally Enforceable Through Title V Permit
4. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When in service, tank shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the tank from the vapor control system, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the tank. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District NSR Rule] Federally Enforceable Through Title V Permit
9. The facility operator upon detection of a component having a reading greater than 7,500 ppmv shall record the reading for that component and affix a weatherproof readily visible tag bearing the date on which the reading is detected. The tag shall remain in place until the component is repaired, reinspected and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Leak rate in ppmv; 3) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after returning the tank to service. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

20. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain a record of the lab analysis, sampling date and VOC content of the water in milligrams per liter. [District Rule 2080] Federally Enforceable Through Title V Permit

25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-484-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
3,000 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

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PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

23. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-486-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-310A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

23. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-487-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-320A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

23. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-488-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-330A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table iV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit

23. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-489-4

EXPIRATION DATE: 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,700 GALLON (84" DIA X 72" TALL) INDUCED GAS FLOTATION UNIT V-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

DRAFT

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

23. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit

26. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 8.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

28. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-497-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,300 BBL (12 FT DIAMETER BY 65 FT SHELL LENGTH) FREE WATER KNOCK OUT V-201G VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

DRAFT

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. The vessel shall vent to the vapor control system listed on permit S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak and are a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Any vessel gauging or sampling device on a vessel 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 NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit
12. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
14. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
15. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas, or; 4) by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
17. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
18. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 2080] Federally Enforceable Through Title V Permit
19. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
20. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-498-2 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
40,000 BBL FIXED-ROOF CLARIFIER TANK T-200A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

12. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

13. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

14. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

15. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

21. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

22. All piping, valves and fittings shall be constructed and maintained in a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) condition except as provided below. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

23. For leak detection and repair (LDAR) monitoring, a leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

24. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) cover which shall be closed at all times except during gauging or sampling. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

25. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District NSR Rule] Federally Enforceable Through Title V Permit

26. VOC emission rate from components in gas and light crude oil service associated with this emission unit shall be less than 9.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

27. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

28. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), 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. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

29. Operator shall maintain an inspection log containing the following (1) type of component leaking; (2) date of leak detection, and method of detection; (3) date and emission level of recheck after leak is repaired; (4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

30. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

31. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedure as described in Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

32. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on the premises for a period of at least 5 years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-499-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 20 **TOWNSHIP:** 28S **RANGE:** 21E

DRAFT

EQUIPMENT DESCRIPTION:
5,000 GALLON OIL/WATER TANK T-410 AND AUXILIARY EQUIPMENT INCLUDING TWO DECANTER CENTRIFUGES, ONE VERTICAL CENTRIFUGE, ONE AUGER, TWO OIL/WATER PUMPS AND FOUR ROLL-OFF BINS (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
2. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
3. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
4. The tank shall not store organic liquids with a true vapor pressure (TVP) greater than 4.65 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Tank shall be operated at a constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions from the tank shall not exceed 1.1 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Only four roll-off bins shall be used at any given time. No onsite storage of more than four filled roll-off bins is allowed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Daily VOC emissions from each roll-off bin shall not exceed 1.9 lb VOC/day. Only roll-bins with a surface area of less than 148.5 square feet shall be used to ensure compliance with the VOC emissions limit. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC emission rate from fugitive components in light crude oil service associated with this emissions unit shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

16. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 4623, 5.7.5.3] Federally Enforceable Through Title V Permit

17. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

19. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, during sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6] Federally Enforceable Through Title V Permit

20. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6] Federally Enforceable Through Title V Permit

21. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6] Federally Enforceable Through Title V Permit

22. The following components can be excluded from the fugitive component count: 1) components handling produced fluids with an API gravity less than 30 degrees; 2) components in water/oil service (water content >50%); and 3) components handling fluid streams with a VOC content < 10%. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. True vapor pressure of tank contents and API gravity shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored, according to the approved test methods listed in District Rule 4623. [District Rules 2201 and 4623, 6.2] Federally Enforceable Through Title V Permit

24. Permittee shall keep accurate records of true vapor pressure, storage temperature, API gravity, and types of liquids stored for a period of five years, and shall make such records readily available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

25. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

26. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-501-3 **EXPIRATION DATE:** 05/31/2006

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EQUIPMENT DESCRIPTION:
55,000 GALLON (12 FT DIAMETER X 65 FT LENGTH) FREE WATER KNOCKOUT VESSEL V-201H WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained gas-tight, except during periods of vessel cleaning. [District Rules 2201and 2520] Federally Enforceable Through Title V Permit
2. Vessel shall be designed and maintained to vent only to the gas gathering system or the flare (S-1547-144), except during periods of vessel cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The FWKO shall be equiped with a control valve on its vapor-out line which shall be set at a sufficient pressure to prevent the backflow of tank vapors into the FWKO vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during periods of vapor control system maintenance, and tank cleaning, vapor collection system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
11. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 4409] Federally Enforceable Through Title V Permit
13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance Division at least 72 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Upon reintroducing crude oil/water to the tank, the vapor control system shall be reactivated and pressure relief valves closed. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

25. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-503-1 **EXPIRATION DATE:** 05/31/2006

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EQUIPMENT DESCRIPTION:
40,000 BBL FIXED-ROOF CLARIFIER TANK T-200B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. All piping, valves and fittings shall be constructed and maintained in a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) condition except as provided below. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
2. For leak detection and repair (LDAR) monitoring, a leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) cover which shall be closed at all times except during gauging or sampling. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components in gas and light crude oil service associated with this emission unit shall be less than 9.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. For the purposes of company conducted inspections, if any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21) , 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 Rules 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
8. Leaks measuring > 500 ppmv and <10,000 ppmv, or leaks measuring >10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components > 10,000 ppmv discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rules Rule 4623] Federally Enforceable Through Title V Permit
10. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date of leak detection, and method of detection; 3) date and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedure as described in Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall notify the District Compliance division in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] Federally Enforceable Through Title V Permit
16. Operator shall notify the EPA and District of the date construction is commenced postmarked no later than 30 days after such date. Notification shall include the District-approved Operating Plan. [40 CFR 60.113b(c)(1)]] Federally Enforceable Through Title V Permit
17. Operator shall notify the EPA and the District of the actual date of initial startup postmarked within 15 days of such date. [40 CFR 60.7(a)(3] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on the premises for a period of at least 5 years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-504-1 **EXPIRATION DATE:** 05/31/2006

SECTION: 20 **TOWNSHIP:** 28S **RANGE:** 21E

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EQUIPMENT DESCRIPTION:
14,000 GALLON (7.5 FT DIAMETER X 40 FT LENGTH) INDUCED STATIC FLOTATION CELL V-240F CONNECTED TO VAPOR CONTROL SYSTEM LISTED IN S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning. 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, as methane, above background on a portable hydrocarbon detection instrument that is calibrated as methane in accordance with EPA Test Method 21. [District Rule 2201& 2520] Federally Enforceable Through Title V Permit
2. Tank gauging or sampling devices shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
3. The induced static flotation unit is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623]
4. When in service, the vessel shall vent only to the vapor control system listed in S-1547-144, except during periods of vessel cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the vapor control components associated with this unit shall not exceed 13.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rules 2201 4409] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Document -453/R-95-017, Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, emission factors, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 1 hour after detection of leak; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rules 2201 and 4409 Sec. 5.3.6]
14. Operator shall maintain an inspection log containing the following 1) Number and type of component leaking; 2) Date of leak detection, and method of detection; 3) Date of repair, replacement or removal from operation of leaking component; 4) Date and emission level of recheck after leak is repaired; 5) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 6) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. The operator shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rules 2201 4409 Sec 6.2]
15. This permit authorizes induced flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct induced flotation unit cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Induced flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance Division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The induced static flotation unit shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date the cleaning was initiated, the date cleaning was completed, the method of cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
26. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

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ATTACHMENT B

Existing Title V Operating Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Permit to Operate

FACILITY: S-1548 **EXPIRATION DATE:** 05/31/2006

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

FACILITY LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
CA

FACILITY DESCRIPTION: LIGHT OIL 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

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

San Joaquin Valley
Air Pollution Control District

FACILITY: S-1548-0-3 **EXPIRATION DATE:** 05/31/2006

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, 9.9.1 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) (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, where applicable, that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.5.1] 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

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.6.1] Federally Enforceable Through Title V Permit

11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520(6/15/95) [District Rules 2520, 9.6.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.8] Federally Enforceable Through Title V Permit

13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.9.2] Federally Enforceable Through Title V Permit

14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.9.3] Federally Enforceable Through Title V Permit

15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.9.4] Federally Enforceable Through Title V Permit

16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the 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 (12/17/92), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

23. No person shall supply, sell, solicit or apply any architectural coating, except specialty coatings, that contains more than 250 grams of VOC per liter of coating (less water and exempt compounds, and excluding any colorant added to tint bases), or manufacture, blend, or repackage such coating with more than 250 grams of VOC per liter (less water and exempt compounds, and excluding any colorant added to tint bases) for use within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

24. Specialty Coating Limitations: No person shall apply, sell, solicit, or offer for sale any architectural coating listed in the Tables of Standards (District Rule 4601, Table 1 and Table 2), nor manufacture, blend, or repackage such coating for use within the District, which contains VOCs in excess of the specified limits after the corresponding date listed in Table 1(grams of VOC per liter of coating as applied less water and exempt compounds, excluding any colorant added to tint bases) and in Table 2 (grams of VOC per liter of material), except as provided in Section 5.3 of Rule 4601. [District Rule 4601, 5.2] Federally Enforceable Through Title V Permit

25. All VOC-containing materials used in any architectural coating operation 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 architectural coating 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. 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, 9.14.1and 10.0] Federally Enforceable Through Title V Permit

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

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

30. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8020 (4/25/96) unless specifically exempted under section 4 of Rule 8020 (4/25/96). [District Rule 8020] Federally Enforceable Through Title V Permit

31. Outdoor handling and storage of any bulk material which emits dust shall comply with the requirements of SJVUAPCD Rule 8030 (4/25/96), unless specifically exempted under section 4 of Rule 8030 (4/25/96). [District Rule 8030] Federally Enforceable Through Title V Permit

32. Any paved road over 3 miles in length, and any unpaved roads over half a mile in length, constructed after December 10, 1993 shall use the design criteria and dust control measures of, and comply with the administrative requirements of, SJVUAPCD Rule 8060 (4/25/96) unless specifically exempted under section 4 of Rule 8060 (4/25/96). [District Rule 8060] Federally Enforceable Through Title V Permit

33. 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

34. 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

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35. 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

36. 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

37. 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

38. 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 (12/17/92); 4601, sections 5.1, 5.2, 5.4, 5.5, 6.1, and 6.2 (9/17/97); 8020 (4/25/96); 8030 (4/25/96); 8060 (4/25/96); A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

41. Each hatch shall be closed at all times except during sampling or attended maintenance operations. [District Rule 4403, 5.1.1] Federally Enforceable Through Title V Permit

42. A leak shall be defined as any of the following: 1) the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs; or 2) a reading as methane in excess of 20,000ppm above background when measured at a distance of one (1) centimeter from the potential source in accordance with EPA method 21 with the instrument calibrated with methane. [District Rule 4403, 3.2.1] Federally Enforceable Through Title V Permit

43. All components containing VOCs shall be inspected by the facility operator annually to ensure compliance with the provisions of this permit. The inspections shall be conducted in accordance with EPA Method 21, with the instrument calibrated with methane. If two (2) percent or more of the qualifying components are found to leak during an annual inspection, the inspection frequency for that type of component shall be changed from annual to quarterly. If less than two (2) percent of the qualifying components are subsequently found to be leaking during five (5) consecutive quarterly inspections, the inspection frequency for that type of component may be changed from quarterly to annual. [District Rule 4403, 5.1.2] Federally Enforceable Through Title V Permit

44. Components that have been identified in the operator management plan (as approved by APCO) as located in inaccessible location shall be inspected and repaired at least annually. Components that have been identified in the operator management plan as located in areas which cause inspection to be unsafe for personnel shall be inspected and repaired at the next process unit turnaround. [District Rule 4403, 5.1.3] Federally Enforceable Through Title V Permit

45. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of District Rule 4403. [District Rule 4403, 5.1.4] Federally Enforceable Through Title V Permit

46. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 4403, 5.1.5] Federally Enforceable Through Title V Permit

47. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection pursuant to District Rule 4403, 5.3 shall not be in violation per Rule 4403, 5.1.2. [District Rule 4403, 5.1.6] Federally Enforceable Through Title V Permit

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48. The number of leaks of a component type exceed shall not exceed one (1) component, or two (2) percent of that type that were inspected, whichever is greater, and that are subject to the requirements of this rule. For inspections conducted by District personnel to determine compliance, the number of components inspected shall constitute a statistically representative sample (as defined in District Rule 4403, Section 3.1.11, as amended 2/16/95) for each component type. [District Rule 4403, 5.1.7] Federally Enforceable Through Title V Permit

49. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 4403, 5.3.1] Federally Enforceable Through Title V Permit

50. Any vapor control device, other than a flare, used to comply with District Rule 4403, section 5.3.1 shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2 and District Rule 4403, 5.3.1] Federally Enforceable Through Title V Permit

51. If a leaking component is an essential part of a critical process identified in the operator management plan and which cannot be immediately shut down for repairs, the operator shall: 1) minimize the leak within 15 calendar days, and 2) if a leak which has been minimized still exceeds the limits in defined in the permit conditions, as applicable, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [District Rule 4403, 5.3] Federally Enforceable Through Title V Permit

52. Each operator shall maintain an inspection log containing, at a minimum, the following: 1) name, location, type of components, and description of any unit where leaking components are found; 2) date of leak detection, emission level (ppm) of leak, and method of detection; date and emission level of recheck after leak is repaired; 3) total number of components inspected, and total number and percentage of leaking components found; 4) identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 4403, 6.2] Federally Enforceable Through Title V Permit

53. Any component leak identified by a Notice to Repair issued by the District shall be repaired and reinspected as specified in District Rule 4403, 5.1.4, and 5.1.5, as appropriate. [District Rule 4403, 5.3.2] Federally Enforceable Through Title V Permit

54. The True Vapor Pressure (TVP) of organic liquids, including light crude and petroleum distillates, shall be determined as specified in District Rule 4403, 6.3.3 (Amended February 16, 1995). [District Rule 4403, 6.3.3] Federally Enforceable Through Title V Permit

55. Leak detection shall be performed in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 4403, 6.3.4] Federally Enforceable Through Title V Permit

56. API gravity of crude oil shall be determined by using ASTM D-1298. [District Rule 4403, 6.3.5] Federally Enforceable Through Title V Permit

57. Operator shall submit an operator management plan to APCO as required by Rule 4403, 6.1 (as amended December 17, 1992). [District Rule 4403, 6.1] Federally Enforceable Through Title V Permit

58. Conditions 41 through 57 do not apply to components handling crude oil with an API gravity less than 30ø or a TVP less than or equal to 1.5 psia, components handling commercial natural gas, components handling liquids containing greater than 90% water, components subject to the requirements of Rule 4623 or 4401, or components handling heavy liquid streams that contain less than 10% by weight evaporation rate at 150 C. [District Rule 4403] Federally Enforceable Through Title V Permit

59. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4403, Sections 5.1, 5.3, and 6.3 (Amended February 16,1995). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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60. This source meets the criteria for black oil per 40 CFR 63.761. Therefore, the requirements of 40 CFR Part 63, Subpart HH do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

61. On October 31, 2001, the initial Title V permit was issued, the reporting period of the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of reporting period. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

62. 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 4409, 5.1.1] Federally Enforceable Through Title V Permit

63. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

64. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

65. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

66. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit

67. Minor gas leaks from PRSBs detected during any District inspection shall not be counted toward determination of compliance with this rule provided the permittee repairs, replaces, or removes leaking PRSBs from VOC service as soon as practicable but not later than seven calendar days. [District Rule 4409, 5.1.3.1.2] Federally Enforceable Through Title V Permit

68. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

69. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit

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70. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a 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 line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit

71. A leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit

72. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit

73. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

74. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

75. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

76. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

77. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv.. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

78. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

79. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

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80. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

81. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

82. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit

83. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit

84. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit

85. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit

86. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

87. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit

88. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit

89. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit

90. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit

91. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

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92. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit

93. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit

94. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit

95. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit

96. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit

97. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

98. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

99. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

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100. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit

101. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit

102. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit

103. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

104. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit

105. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

106. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit

107. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit

108. 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 4409, 6.2.3] Federally Enforceable Through Title V Permit

109. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4] Federally Enforceable Through Title V Permit

110. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit

111. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit

112. The percent by volume liquid evaporated at 302 øF (150 øC) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit

113. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit

114. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit

115. 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 4409, 6.3.6] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

116. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-45-6 **EXPIRATION DATE:** 05/31/2006

SECTION: 28 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,730,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-471 WITH VAPOR RECOVERY SYSTEM WITH VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) AND PIPING TO FIELD GAS SYSTEM SHARED WITH S-1548-143 (TANK #T-470)

PERMIT UNIT REQUIREMENTS

1. P/V vents shall be set to relieve at a pressure higher than required to activate vapor compressor. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Tank roof appurtenances shall not leak gas in excess of 10,000 ppm above background when measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions from components associated with vapor recovery system shared between this permit unit and permit unit S-1548-143 shall not exceed 59.0 lb/day. [District NSR Rule and 4623, 5.3.1] Federally Enforceable Through Title V Permit
5. Compressed vapors shall be sent to the field gas gathering system. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 1070] Federally Enforceable Through Title V Permit
7. Permittee shall comply with all inspection, maintenance, record keeping, and reporting requirements of Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of Reid vapor pressure, storage temperature, and types of liquids stored. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
9. All records required by this permit shall be maintained for a period of Five years and permittee shall make such records available for District inspection upon request. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
10. Any tank gauging,or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Emissions from gauging or sampling device covers in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
11. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 4623, 5.7 (Table 3)] 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 can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

16. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

19. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, 25b, or as approved by District Rule 4623. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

20. The operator shall ensure that the vapor recovery system is functional and is operating in compliance with permit conditions at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-113-1 **EXPIRATION DATE:** 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
584,318,750 BTU/HR EMERGENCY FLARE (LOST HILLS 1 LEASE)

PERMIT UNIT REQUIREMENTS

1. Gas flared shall not exceed 15,000,000 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Each quarter whenever the flare is combusting emergency releases of VOC for three (3) hours or more, the permittee shall perform a visible emissions inspection using EPA Method 22. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. Except during required maintenance, the flares shall be operated with a pilot flame present at all times, and kept in operation when gas may be vented to them. The pilot flame shall be monitored using a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor or any other equivalent device to detect the presence of at least one pilot flame or the flare flame. [District Rule 2520, 9.3.2 and 4311] Federally Enforceable Through Title V Permit
4. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To show compliance compliance with the sulfur limits, the gas being flared shall be tested quarterly for sulfur content and higher heating value. [District Rule 2520, 9.3.2 and 4801] Federally Enforceable Through Title V Permit
5. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of emergency and non-emergency operation, hours of operation for flare maintenance and testing, and the amount of gas flared for a period of five years and make such records readily available for District inspection upon request. [District NSR Rule, District Rule 1070, and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Formerly S-1512-1

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-115-6 **EXPIRATION DATE:** 05/31/2006

SECTION: SW04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
450 BHP AJAX DPC450 CLEANBURN IC ENGINE POWERING COMPRESSOR UNIT #5, WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. The engine shall only burn natural gas with a sulfur content of less than or equal to 0.017% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Emissions from IC engine shall not exceed any of the following: NOx (as NO2): 65 ppmv @ 15% O2; VOC: 750 ppmv @ 15% O2; and CO: 2000 ppmv @ 15% O2. [District Rule 4701, 4702 and 2520] Federally Enforceable Through Title V Permit
5. Source testing shall be District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
6. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit
10. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations and District policy SSP-1810. 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 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4701 and 4702] Federally Enforceable Through Title V Permit

15. Permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.4.2]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 407 (Kern)] Federally Enforceable Through Title V Permit
20. Particulate emissions shall not exceed, at the point of discharge, 0.1 gr/dscf. [District Rule 4201; 404 (Kern)] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; 407 (Kern). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 4702 and 2520 9.4.2] Federally Enforceable Through Title V Permit
27. All records required by this permit, including source test results and monitoring data, shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4701, 4702 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
28. Formerly S-1512-6

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-116-6 **EXPIRATION DATE:** 05/31/2006

SECTION: SW04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
450 BHP AJAX DPC450 CLEANBURN I.C. ENGINE POWERING COMPRESSOR UNIT #6 WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rules 1070 and 2520 9.3.2] Federally Enforceable Through Title V Permit
3. The engine shall only burn natural gas with a sulfur content of less than or equal to 0.017% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Emissions from IC engine shall not exceed any of the following: NOx (as NO2): 65 ppmv @ 15% O2; VOC: 750 ppmv @ 15% O2; and CO: 2000 ppmv @ 15% O2. [District Rule 4701, 4702 and 2520] Federally Enforceable Through Title V Permit
5. Source testing shall be District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
6. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit
10. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations and District policy SSP-1810. 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 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4701 and 4702] Federally Enforceable Through Title V Permit

15. Permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 407 (Kern)] Federally Enforceable Through Title V Permit
20. Particulate emissions shall not exceed, at the point of discharge, 0.1 gr/dscf. [District Rule 4201; 404 (Kern)] Federally Enforceable Through Title V Permit
21. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; 407 (Kern). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 4702 and 2520 9.4.2] Federally Enforceable Through Title V Permit
27. All records required by this permit, including source test results and monitoring data, shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4701, 4702 and 2520, 9.5.2] Federally Enforceable Through Title V Permit
28. Formerly S-1512-7

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-120-12 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
126,000 GALLON CONE ROOF REJECT OIL TANK F-3005 WITH VAPOR CONTROL COMPRESSOR, COOLERS AND LIQUID KNOCKOUTS, SAND BASIN, ISOLATION VALVE, AND 3.3 MMBTU/HR PERMIT EXEMPT HEATER TREATER

PERMIT UNIT REQUIREMENTS

1. Total VOC fugitive emission rate from the tank (S-1548-120) and the associated vapor control system shall not exceed 45.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017. [District NSR Rule] Federally Enforceable Through Title V Permit
3. This vapor control system is shared with permits S-1548-121, -122, -126, -385, -386, -420, and '-443 and a permit exempt 3.3 MMBtu/hr heater treater. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Tanks gauging and/or sampling devices shall be equipped with gas-tight (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
6. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. VOC destruction device(s) serving the vapor recovery system shall reduce the inlet VOC emissions by at least 95% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
16. Except for open flame flares, the efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 25, except when the outlet concentration must be below 50 ppm in order to met the standard, in which case Method 25a may be used. [District Rule 4623] Federally Enforceable Through Title V Permit
17. Except for periods of tank cleaning the vapor recovery system shall be operational at all times. [District Rule 2210] Federally Enforceable Through Title V Permit
18. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
20. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
21. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
23. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
24. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit
27. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District Rule] Federally Enforceable Through Title V Permit
28. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
29. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
30. Formerly S-1512-11

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-121-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED CONE ROOF LACT TANK WITH ISOLATION VALVE VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. VOC fugitive emissions from the components in gas service on the tank and tank vapor collection piping shall not exceed 8.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the District. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Tanks gauging and/or sampling devices shall be equipped with gas-tight (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
5. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
6. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
18. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
19. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
20. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
22. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

25. Formerly S-1512-12

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-122-5 **EXPIRATION DATE:** 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3002 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
2. All piping, valves and fittings associated with the vapor recovery system shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
3. The vessel and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
4. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, and -420. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, valves associated with the vapor recovery system, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of District Rule 4403. [District Rule 4403, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
10. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
11. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit
13. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 12.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
16. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
17. Formerly S-1512-13 [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-126-5 **EXPIRATION DATE:** 05/31/2006

SECTION: 04 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED ROOF CONE BOTTOM CLARIFIER TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

PERMIT UNIT REQUIREMENTS

1. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tanks gauging and/or sampling devices shall be equipped with gas-tight (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
16. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
17. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
18. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
20. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 28.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
23. Formerly S-1512-18

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-134-6 **EXPIRATION DATE:** 05/31/2006

SECTION: NW02 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
625 MMBTU/HR LIMITED USE FLARE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (120.0 lb/day, 713 lb/yr), SOx (as SO2): 0.07261 lb/MMBtu (1089.2 lb/day, 6474 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (1020.0 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (945.0 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (5550.0 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
3. Flare shall be equipped with two automatic, electronic pilots (model KEP-100 or equivalent) and gas flow detector for startup of automatic ignitors. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
4. Flare shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Flare inlet pressure shall be no less than 6 psig. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
6. Total quantity of produced gas combusted in flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Sulfur content of produced gas combusted shall not exceed 430 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall measure and record produced gas sulfur content and calculate SO2 emissions at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit
11. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-140-6 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
THREE 800 HP, AND ONE 1,000 HP ELECTRIC MOTOR DRIVEN FUEL GAS COMPRESSORS, EACH WITH A FUEL GAS & A SURGE DRUM AND ASSOCIATED PIPING (COMPRESSOR STATION #49)

PERMIT UNIT REQUIREMENTS

1. VOC emissions shall not exceed 29.1 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Components result in fugitive emissions shall be inspected and maintained in accordance with the requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
3. Permittee shall demonstrate compliance with daily VOC emission limit on annual basis by listing equipment type, number of components, appropriate emission factors from Table 2-4 of the U.S. EPA document "Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017)" or other District approved emission factors, and the total daily emissions. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. Operator shall maintain an inspection log satisfying the requirements of Rule 4409 and copies of the inspection log shall be retained for a minimum of five years after the date of entry and shall be made available to the District upon request. [District Rule 4409] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-143-4 **EXPIRATION DATE:** 05/31/2006

SECTION: SW28 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,730,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK T-470 (ALSO PERMITTED AS S-1547-384 IN THE HEAVY OIL SS) WITH SHARED VAPOR RECOVERY SYSTEM DESCRIBED ON S-1548-45

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permittee shall comply with all inspection, maintenance, record keeping, and reporting requirements of Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from components associated with vapor recovery system shared between this permit unit and permit unit S-1548-45 shall not exceed 59.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain with the permit accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Tank vapors shall only vent through vapor collection system shared with S-1548-45. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 2010] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of liquid temperature and Reid vapor pressure. Such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule, 2520, 9.4.2 and 4623] Federally Enforceable Through Title V Permit
8. Vapor control efficiency shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
10. All piping, valves and fittings associated with the vapor recovery system shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
11. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 4623, 5.7 (Table 3)] 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 can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

16. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

19. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

20. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 422. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

21. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-144-41 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
504,000 GALLON FIXED ROOF CLARIFIER TANK 201A W/ VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) & PIPING TO FIELD GAS SYSTEM OR AIR ASSISTED KALDAIR FLARE W/PLA-18 FLARE TIP

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall consist of vapor piping from vessels and tanks S-1548-144, '145, '146, '147, '148, '149, '418, '419, '428, '429, '439, '440, '441, '442, '463, '476, and '-478 through '-484, '486 through '489, '497, '498, '501, '503, and '504. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Except during maintenance activities and power outages, operator shall continuously monitor the discharge pressure of the vapor recovery system to ensure its proper operation. The monitoring system shall be programmed to alarm the operator when the discharge pressure increases to where the flare activates. [District Rule 2201 and 40 CFR 60.113b(c)(1)(ii)] Federally Enforceable Through Title V Permit
4. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control systems. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The vapor control system shall be capable of reducing VOC emissions by at least 99% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total VOC emission rate from S-1548-144 (excluding the flare), S-1548-145, S-1548-146, S-1548-147, S-1548-148, S-1548-149, S-1548-428, S-1548-429, S-1548-439, S-1548-440, S-1548-441, and S-1548-442 shall not exceed 161.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a fixed roof with no holes or openings [District Rule 2201] Federally Enforceable Through Title V Permit
9. Collected vapors shall be compressed to the field gas system or incinerated in the flare. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Flare shall be operated with a flame present at all times. Presence of a flame shall be monitored using a thermocouple or equivalent device. Kaldair Inc.'s KEP-100 Ignition System is an approved monitoring device. [District Rule 4001 and 4311] Federally Enforceable Through Title V Permit
11. Flare pilot fuel shall be LPG or natural gas with sulfur content less than 0.75 grains/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001 40CFR 60.115b(d)(3)] Federally Enforceable Through Title V Permit
14. Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rules 2201 and 4001] Federally Enforceable Through Title V Permit
15. Flare shall be equipped with flare gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Net heating value of the gas being combusted by flare shall be 300 Btu/scf or greater. [District Rule 4001 and 4311] Federally Enforceable Through Title V Permit
17. Total sulfur concentration of gas incinerated in flare shall not exceed 2000 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
18. Maximum amount of gas combusted shall not exceed any of the following: 5,000,000 scf/day, 25 MMscf/quarter, 100 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NOx (as NO2): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall measure sulfur content of gas incinerated in flare at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
21. Permittee shall keep accurate records of daily, quarterly, and annual quantity of gas combusted. Such records shall be retained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
22. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once annually 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 Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. Any tank gauging or sampling device on a tank vented to a vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging and sampling. Leak-free shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated to methane in accordance with EPA method 21. Emissions in excess of this limit shall be a violation of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
24. All piping valves and fittings associated with the tank and vapor control system shall be constructed and maintained in a leak-free condition. "Leak-free" shall be defined as emitting no more that 10,000 ppmv of methane in accordance with EPA Method 21. Emissions in excess of this limit shall be a violation of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
25. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit
26. A leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA test Method 21. [40 CFR 60.112b(a)(3)(i)]] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. If any of the tank and vapor control system 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. [40 CFR 60.112b(a)(3)(i)]] Federally Enforceable Through Title V Permit

28. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a) Eliminate the leak within 8 hours after detection; or b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c) Eliminate the leak within 48 hours after minimization; and d) In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit

29. For leaks >10,000 ppmv, leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

30. For leaks >10,000 ppmv, if a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

31. For leaks >10,000 ppmv, any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

32. Operator shall maintain an inspection log containing the following 1) Number and type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 1070, 2201, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

34. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or as approved by District Rule 4623. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

35. The operator shall ensure that the vapor recovery system is functional and is operating in compliance with permit conditions at all times. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-145-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T201B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201]
2. The tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall comply with all applicable requirements of Rule 4403. [District Rule 4403] 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 gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-146-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T202A WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 4623] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall comply with all applicable requirements of Rule 4403 [District Rule 4403] Federally Enforceable Through Title V Permit
5. Emissions shall not exceed that listed in S-1548-144. [District NSR Rule] 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 gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
7. All piping, valves and fittings associated with the vapor recovery system, shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-147-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
12,000 BBL FIXED ROOF CLARIFIER TANK #T202B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 4623] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall comply with all applicable requirements of Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
5. Emissions shall not exceed that listed in S-1548-144. [District NSR Rule] 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 gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
7. All piping, valves and fittings associated with the vapor recovery system, shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-148-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
40,000 BBL FIXED ROOF STORAGE TANK #T211 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201]
2. The tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall comply with all applicable requirements of Rule 4403. [District Rule 4403] 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 gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
7. All piping, valves and fittings associated with the vapor recovery system, shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-149-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2,000 BBL CRUDE OIL SKIM TANK #T242 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20:

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permittee shall comply with all applicable requirements of Rule 4403 [District Rule 4403] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 4623] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
5. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District NSR Rule] 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 gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
7. All piping, valves and fittings associated with the vapor recovery system, shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-171-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
1,215 BHP WAUKESHA MODEL L-5790 GSI NATURAL GAS-FIRED IC ENGINE (SERIAL # C-12312/1) WITH 3-WAY CATALYST AND AIR/FUEL RATIO CONTROLLER DRIVING A GAS COMPRESSOR (MID BELRIDGE COMPRESSOR STATION #26)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.25 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 3.9 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

20. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-172-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

20. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-173-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,478 HBP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

20. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-174-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

20. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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26. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

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31. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-175-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated with permit units S-1548-172 through '-175 shall not exceed 15.6 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) - 25 ppmv @ 15% O2, VOC - 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

20. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

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23. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-178-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
SULFATREAT FUEL GAS SCRUBBING SYSTEM WITH LIQUID KNOCKOUT VESSEL, CONTACTOR VESSEL AND ASSOCIATED PIPING AND COMPONENTS. BELRIDGE COMPRESSOR STA #26

PERMIT UNIT REQUIREMENTS

1. All vessel hatches and openings shall remain closed during operation of H2S scrubber. [District NSR Rule, 4102] Federally Enforceable Through Title V Permit
2. Operation shall be equipped with H2S sampling port upstream of the inlet to the sulfur scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No components (i.e., valves, flanges, etc.) associated with the Sulfa treat unit shall be the source of any leak greater than 10,000 ppmv (as methane) when measured at a distance no greater than 1 cm from the potential source per EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain accurate component count for scrubber operation according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, " Table IV-2c (Feb 1999), Screening Value Range emission factors. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive emissions from components in gas service and components in water/oil service associated with this permit unit shall not exceed 0.5 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Influent and effluent gas streams of sulfa treat system shall be monitored at least monthly for H2S content of effluent gas to determine when recharging is required. [District NSR Rule] Federally Enforceable Through Title V Permit
7. During recharging of the sulfur scrubber, the untreated produced gas shall not be introduced into the fuel system if the sulfur content of the untreated gas is greater than 0.25 grains S/100 dscf (4.5 ppmv H2S). Produced gas shall not be vented to the atmosphere during recharging, regardless of sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
8. During recharging, if the H2S content of the untreated gas is greater than 4.5 ppmv, then the produced gas shall be either be 1) treated by H2S scavenging equipment permitted by S-1548-451 to a level no greater than 4.5 ppmv H2S prior to being discharged to the fuel system, or 2) oil and gas production shall be temporarily shut in, such that the gas volumes handled at Compressor Station # 26 do not exceed the capacity of electric compressor S-1548-426. [District Rule 2201] Federally Enforceable Through Title V Permit
9. H2S content of produced gas being piped to fuel system (bypassing the scrubber), during recharging of the scrubber, shall be monitored daily using draeger tubes. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The following test method shall be used for fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Daily records of H2S content of produced gas piped to the fuel system during scrubber recharging, shall be maintained. The records shall include identification of the equipment, date of inspection, and identification of the individual performing the inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. All records of required monitoring data and support information shall be maintained for at least five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

13. 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 VOCs in excess of the applicable leak standards of rule 4409 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, and do not exceed the NSR 10,000 screening level limit. [District Rules 2201 and 4409, 5.1.1] Federally Enforceable Through Title V Permit

14. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components subject to the requirements of Rule 4409, but not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

15. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

16. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

17. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit

18. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a 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 line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit

19. For rule 4409 compliance, a leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit

20. For rule 4409 compliance, a leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit

21. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

22. For rule 4409 compliance, when 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. For rule 4409 compliance, when 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

24. For rule 4409 compliance, when 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

25. For rule 4409 compliance, when 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

26. For rule 4409 compliance, when compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

27. For rule 4409 compliance, when pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

28. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit

29. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit

30. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit

31. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit

32. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

33. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit

34. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit

35. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit

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36. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit

37. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non- Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

38. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit

39. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit

40. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit

41. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit

42. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit

43. For rule 4409 compliance, the operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of rule 4409. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

44. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

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45. For rule 4409 compliance, the operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

46. For rule 4409 compliance, for each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit

47. For rule 4409 compliance, if a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit

48. For rule 4409 compliance, for any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit

49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

50. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit

51. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. For rule 4409 compliance, the operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit

53. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit

54. 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 4409, 6.2.3] Federally Enforceable Through Title V Permit

55. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4] Federally Enforceable Through Title V Permit

56. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit

57. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-385-6 **EXPIRATION DATE:** 05/31/2006

SECTION: 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tanks gauging and/or sampling devices shall be equipped with gas-tight (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
13. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
14. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
15. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
17. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 96.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. Formerly S-1130-32

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-386-6 **EXPIRATION DATE:** 05/31/2006

SECTION: 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120

PERMIT UNIT REQUIREMENTS

1. The tank and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening tank for tank interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the tank vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tanks gauging and/or sampling devices shall be equipped with gas-tight (as defined in Rule 4623) covers which shall remain closed at all times except during gauging or sampling. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
4. "Gas-tight" shall be defined as emitting no more than 10,000 ppm of methane measured with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.4] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
13. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
14. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
15. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
17. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 96.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
20. Formerly S-1130-33

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-389-7 **EXPIRATION DATE:** 05/31/2006

SECTION: 15 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
223,125,000 BTU/HR COANDA EFFECT SAFETY FLARE (WESTSIDE)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare shall not exceed any of the following limits: NOX (as NO2) - 0.068 lb/MMBtu; SOX (as SO2) - 0.3377 lb/MMBtu; PM10 - 0.008 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (42.8 lb/day, 713 lb/yr), SOx (as SO2): 0.3377 lb/MMBtu (1808.4 lb/day, 30,109 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (364.1 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (337.4 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (1981.4 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
4. Total quantity of produced gas combusted in the flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Flare shall be equipped with an operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The pilot flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
7. A heat sensing device, such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting the presence of at least one pilot flame or the flare flame, shall be installed and operated. [District Rule 4311] Federally Enforceable Through Title V Permit
8. Only propane or natural gas shall be used to fuel the flare pilot. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Sulfur content of produced gas combusted shall not exceed 2000 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
10. Permittee shall measure sulfur content of flared gas at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Formerly S-1130-89 [District Rule 2010] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-400-13 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

PERMIT UNIT REQUIREMENTS

1. The engine shall be fired on natural gas or field gas with a sulfur content less than 1.0 grains/100 dscf only. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Fugitive components associated with the SulfaTreat sulfur removal system shall not exceed the following: 16 flanges, 24 threaded connectors, 8 valves, 2 pressure relief valves, and 4 other. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
4. Emissions of oxides of nitrogen (NOx) shall be reduced by 96% across catalytic converter or emissions of NOx shall not exceed 25 ppmv on a dry basis corrected to 15% oxygen. [District Rule 4702]
5. Emissions of carbon monoxide (CO) in exhaust shall not exceed 2000 ppm on a dry basis corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
6. Emissions of volatile organic compounds (VOC) in exhaust averaged over not less than 15 consecutive minutes shall not exceed 250 ppm on a dry basis corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
7. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
8. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] 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 results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
11. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4701, 4702 and 2520, 9.3.2] 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 and District policy SSP-1810. 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 4701, 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4701 and 4702] Federally Enforceable Through Title V Permit

17. Permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
22. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
23. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 4702 and 2520 9.3.2] Federally Enforceable Through Title V Permit
27. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
28. Note: Formerly S-1130-146.

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-411-13 **EXPIRATION DATE:** 05/31/2006

SECTION: SE35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

PERMIT UNIT REQUIREMENTS

1. This unit shall be fired on natural gas or field gas with a sulfur content less than 1.0 grains/100 dscf only. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
3. Emissions of oxides of nitrogen (NOx) shall be reduced by 96% across catalytic converter or emissions of NOx shall not exceed 25 ppmv on a dry basis corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
4. Emissions of carbon monoxide (CO) in exhaust shall not exceed 2000 ppm on a dry basis corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
5. Emissions of volatile organic compounds (VOC) in exhaust averaged over not less than 15 consecutive minutes shall not exceed 250 ppm on a dry basis corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
6. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
7. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
8. 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
9. 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
10. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rules 1081] Federally Enforceable Through Title V Permit
11. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4701, 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations and District policy SSP-1810. 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 4701, 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4701 and 4702] Federally Enforceable Through Title V Permit

16. Permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Monthly monitoring of NOx, CO and O2 using a portable emission monitor that meets District specifications may be used to satisfy the monthly inspection requirements of the I & M plan. [In-stack O2 monitors may be allowed if approved by the APCO.] [District Rules 4702, 6.5.3 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

22. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 4702 and 2520 9.3.2] Federally Enforceable Through Title V Permit

26. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rules 1070, 4701, 4702 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Note: Formerly S-1130-157.

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-418-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
8,500 BBL WATER STORAGE TANK T-231A SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144

PERMIT UNIT REQUIREMENTS

1. All piping, valves and fittings associated with the vapor control system, shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppmv of methane measured at the interface or within 1 cm of shaft seal interface for pumps and compressors with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at the interface or within 1 cm of shaft seal interface for pumps and compressors with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate shall not exceed 4.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Tank shall vent to vapor control system listed in S-1548-144 [District NSR Rule] Federally Enforceable Through Title V Permit
7. Liquid stored in tank shall have a maximum VOC content of up to 10% by weight as determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E260-85, may be excluded from the total concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. Records of the VOC content of liquid stored in the tank must be kept for a period of 5 years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-419-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
8,500 BBL WATER STORAGE TANK T-231B SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144

PERMIT UNIT REQUIREMENTS

1. All piping, valves and fittings associated with the vapor control system, shall be constructed and maintained in a gas-tight condition. "Gas-tight" shall be defined as emitting no more than 10,000 ppmv of methane measured at the interface or within 1 cm of shaft seal interface for pumps and compressors with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings [District NSR Rule] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at the interface or within 1 cm of shaft seal interface for pumps and compressors with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
4. Tank shall vent to vapor control system listed in S-1548-144 [District NSR Rule] Federally Enforceable Through Title V Permit
5. Liquid stored in tank shall have a maximum VOC content of up to 10% by weight as determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E260-85, may be excluded from the total concentration. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emission rate shall not exceed 5.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
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 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
12. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. Records of the VOC content of liquid stored in the tank must be kept for a period of 5 years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-420-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3004 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

PERMIT UNIT REQUIREMENTS

1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
2. All piping, valves and fittings associated with the vapor recovery system shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
3. The vessel and vapor recovery system, including all piping, valves, and fittings shall be maintained in a gas-tight (as defined by Rule 4623) condition, except during periods of tank interior cleaning. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, fittings, valves associated with the vapor recovery system, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of District Rule 4403. [District Rule 4403, 5.1.4] Federally Enforceable Through Title V Permit
6. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
9. True vapor pressure (TVP) of residual liquids in tank during interior cleaning shall not exceed 5.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
10. TVP shall be determined using test methods described in District Rule 4623. [District Rules 1080 & 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain records of TVP prior to tank interior cleaning and length of time to accomplish tank interior cleaning. [District Rules 2201 & 4623] Federally Enforceable Through Title V Permit
12. On days when an interior tank cleaning is performed in accordance with the provisions in this permit, VOC emissions from interior tank cleaning operations shall not exceed 12.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Liquids removed from vessels prior to tank cleaning shall be sent to tanks equipped with a vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate records of the date of each interior cleaning. [District Rule 1070] Federally Enforceable Through Title V Permit
15. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-423-3 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
300 THERMALLY ENHANCED EXISTING PRODUCTION WELLS AND EXISTING WELL TEST PRESSURE VESSELS NOT UTILIZED FOR PERMANENT GAS/LIQUID SEPARATION IN SOUTH BELRIDGE WITH EXISTING CASING LINES DISCHARGING ONLY TO EXISTING PRODUCED FLUID LINES DISCHARGING ONLY TO EXISTING VAPOR CONTROLLED SECTION 20 DEHYDRATION FACILITY EQUIPMENT WITH PRODUCED GAS PIPED TO EXISTING BELRIDGE GAS PLANT.

PERMIT UNIT REQUIREMENTS

1. Well casing valves shall remain closed or connected to production lines at all times except during periods of actual service or repair as defined in Rule 4401. [District Rule 2201 and 4401] Federally Enforceable Through Title V Permit
2. All produced fluids from any well associated with this operation shall be handled only in existing closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
3. All produced fluids from these thermally enhanced production wells shall be introduced only to LOTS (identified in S-1548-144-8), existing well test pressure vessels not utilized for permament gas/liquid separation and the existing Section 20 dehydration facility (principally, S-1548-144 through '-149 but including associated equipment, i.e., Wemco, ISF units, drain tanks, etc.) [District Rule 2201] Federally Enforceable Through Title V Permit
4. Vapor separated from produced fluids at the Section 20 dehydration facility shall be routed to the existing Belridge gas plant (S-1543-4) or to the emergency flare (S-1548-144). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Thermally enhanced production wells covered by this permit shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of these wells. A copy of the written instructions shall be submitted to the District prior to implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall comply in full with all applicable Rule 4403 requirements. [District Rule 4403] Federally Enforceable Through Title V Permit
7. Except for polish rods, no more than 15 components shall have leaks in excess of 10,000 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 from valves, flanges, connectors and other fugitive emission components associated with thermally enhanced oil production wells in this TEOR operation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All polish rod stuffing boxes shall be inspected and screened for leaks using EPA method 21 at least quarterly. If less than two percent of the polish rod stuffing boxes are found to leak during each of five consecutive quarterly inspections, the inspection frequency may be changed from quarterly to annually. If any annual inspection shows that more than 2 percent of the polish rod stuffing boxes are leaking, then quarterly inspections shall be resumed. Any polish rod leaking greater than 10,000 ppmv, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA method 21 or leaking at a rate of greater than 3 drops of liquid per minute shall be repaired consistent with Rule 4403 section 5.3. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Components except polish rods associated with this operation shall be screened and inspected at least quarterly with a minimum of 25% of the components inspected each quarter. Any leak greater than 5,000 ppm, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of grater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. [District Rule 2201]] Federally Enforceable Through Title V Permit
10. All components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District Rule 2201]] Federally Enforceable Through Title V Permit
11. Component screening shall be performed in accordance with EPA reference Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
13. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit
15. All other components such as diaphragms, dump arms, instruments and meters shall be monitored at all points of possible emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Total uncontrolled VOC emissions from all wells shall be reduced by at least 99%. [District Rule 2201 & 4401] Federally Enforceable Through Title V Permit
17. Fugitive VOC emission rate from all components associated with this operation shall not exceed 132.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emission rate listed above does not include the existing well test pressure vessels at the existing LOTS sites. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall maintain a current list of all thermally enhanced production wells associated with this operation, shall update the list whenever a well is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall maintain a current list of all pressure vessels not utilized for permanent gas/liquid separation associated with this operation, shall update the list whenever a vessel is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
21. Permittee shall maintain for a period of five years, accurate records of fugitive inspection component counts, leak screening values in excess of 10,000 ppm, and shall, as approved by the District, calculate fugitive emissions using February 1999 CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-424-4 **EXPIRATION DATE:** 05/31/2006

SECTION: SW35 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
825 MMBTU/HR KALDAIR INDAIR MODEL I-15-H-VS LIMITED USE FLARE WITH COANDA EFFECT FLARE TIP (COMPRESSOR STATION 49)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark, as, or darker than, Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emission rates from flare (lb/day and lb/yr demonstrated by compliance with flared volumes of combustion gas) shall not exceed any of the following: PM10: 0.008 lb/MMBtu (158.4 lb/day, 713 lb/yr), SOx (as SO2): 0.07262 lb/MMBtu (1437.7 lb/day, 6474 lb/yr), NOx (as NO2): 0.068 lb/MMBtu (1346.4 lb/day, 6063 lb/yr), VOC: 0.063 lb/MMBtu (1247.4 lb/day, 5617 lb/yr), CO: 0.37 lb/MMBtu (7326.0 lb/day, 32,989 lb/yr). [District NSR Rule] Federally Enforceable Through Title V Permit
3. Sulfur content of produced gas combusted shall not exceed 430 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Flare shall be equipped with continuous pilot fired solely on propane or natural gas. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
6. Total quantity of produced gas combusted in flare shall not exceed 89,160 mscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall measure and record sulfur content of flared gas at least annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The gas sulfur content of combustion gas, purge gas, and pilot gas shall be determined using double GC for H2S and mercaptans or any of ASTM test methods D-1072, D-3246, D-4346, or D-6228 or by the gas/propane supplier. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-426-0 **EXPIRATION DATE:** 05/31/2006

SECTION: NE13 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 400 HP GE ELECTRIC MOTOR - STATION #26

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Fugitive components shall be inspected and maintained in accordance with the requirements of Rule 4403. [District Rule 4403]
3. All components handling VOCs shall be inspected for leaks in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 4403]
4. Operator shall maintain an inspection log satisfying the requirements of Rule 4403 and copies of the inspection log shall be retained for a minimum of two years after the date of entry and made available upon request to SJVUAPCD personnel. [District Rule 4403]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-427-0 **EXPIRATION DATE:** 05/31/2006

SECTION: NE32 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 800 HP GE ELECTRIC MOTOR - STATION #50

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Fugitive components shall be inspected and maintained in accordance with the requirements of Rule 4403. [District Rule 4403]
3. All components handling VOCs shall be inspected for leaks in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 4403]
4. Operator shall maintain an inspection log satisfying the requirements of Rule 4403 and copies of the inspection log shall be retained for a minimum of two years after the date of entry and made available upon request to SJVUAPCD personnel. [District Rule 4403]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-428-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
617 BBL INDUCED STATIC FLOTATION CELL V-240 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-429-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
140 BBL CRUDE OIL PROCESS DRAIN VESSEL V-244 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-433-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf (15 ppmv). [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall comply with all applicable provisions of District Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
15. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit
16. District witnessed or approved compliance source testing for NOx, CO, and VOC emission limits shall be conducted on all engines not less than once every 24 months. [District Rule 4701, 6.3.1] Federally Enforceable Through Title V Permit
17. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
18. 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
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. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
21. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
23. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit
26. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit
27. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
28. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
29. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
30. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
34. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-434-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur content concentration (as H2S) not exceeding 0.25 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The engine shall only burn natural gas with total sulfur content not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Permittee shall comply with all applicable provisions of District Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
16. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit
17. District witnessed or approved compliance source testing for NOx, CO, and VOC emission limits shall be conducted on all engines not less than once every 24 months. [District Rule 4701, 6.3.1] Federally Enforceable Through Title V Permit
18. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
19. 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
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
22. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

27. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

28. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

29. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

30. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

31. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-435-4 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 2 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,680 HP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
3. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070]
4. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
5. The engine shall only burn natural gas with fuel gas sulfur content concentration (as H2S) not exceeding 0.25 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The engine shall only burn natural gas with total sulfur content not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive components associated permit units S-1548-433 through S-1548-438 shall not exceed 57.2 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Fugitive emission calculations shall be performed using EPA Publication 453/R-95-017, Table 2-8 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall maintain a current listing of all fugitive components installed with engine/compressor and corresponding VOC emission calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Permittee shall comply with all applicable provisions of District Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
16. Emissions from this engine shall not exceed any of the following limits: 0.071 gr-NOx/bhp-hr (5 ppmv @ 15% O2), 0.003 gr-PM10/bhp-hr, 0.613 gr-CO/bhp-hr (70 ppmv @ 15% O2), or 0.15 gr-VOC/bhp-hr (30 ppmv @ 15% O2). [District NSR Rule] Federally Enforceable Through Title V Permit
17. District witnessed or approved compliance source testing for NOx, CO, and VOC emission limits shall be conducted on all engines not less than once every 24 months. [District Rule 4701, 6.3.1] Federally Enforceable Through Title V Permit
18. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
19. 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
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane, ASTM D 3246 or double GC for total fuel gas sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
22. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show 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 4702, 6.5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (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 4702, 6.5.8] Federally Enforceable Through Title V Permit

27. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified in the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 5.6.7, 6.5.6] Federally Enforceable Through Title V Permit

28. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit

29. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

30. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

31. If the IC engine is fired on natural gas with supplier certified sulfur content, then permittee shall document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the IC engine is not fired on natural gas with supplier certified sulfur content , then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for sulfur content (as H2S). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-439-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201A WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-440-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201B WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-441-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201C WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-442-5 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201D WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel is a pressure vessel as defined by District Rule 4623 Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate shall not exceed that listed in S-1548-144. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-443-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
24,300 GALLON (10 FT. DIA. BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3005 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all applicable requirements of Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
2. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor recovery system or vapor control device for at least 24 hours such that it collects the vapors from the vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
3. During any calendar quarter, a total of three interior cleanings may be performed on the following vessels: S-1548-120, -121,-122, -126, -385, -386, -420, and '-443. Only one vessel may be cleaned in a day. The same vessel may be cleaned multiple times during a quarter, but each cleaning event will count towards the maximum of three interior cleanings per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from components shall not exceed 20.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-444-3 **EXPIRATION DATE:** 05/31/2006

SECTION: SE 19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
29,400 GALLON FREE WATER KNOCKOUT VESSEL (V-300) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-172, '-173, '-174, '-175, AND '-427) AND CONNECTED TO S-1547-1079 CASING VENT VAPOR RECOVERY AND CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor recovery system/vapor control system for at least 24 hours such that it collects all tank vapors. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The interior of the vessel may be cleaned once per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Collected vapors shall be piped to the gas gathering system or to S-1547-1079 casing vent vapor recovery and control system, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from components shall not exceed 45.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-445-1 **EXPIRATION DATE:** 05/31/2006

SECTION: SE 12 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:
42,300 GALLON FREE WATER KNOCKOUT VESSEL (V-100) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-171 AND '-426)

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all applicable requirements of Rule 4403. [District Rule 4403] Federally Enforceable Through Title V Permit
2. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor recovery system or vapor control device for at least 24 hours such that it collects the vapors from the vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Collected vapors shall be piped to the gas gathering system, except during periods of vessel interior cleaning. [District Rule 2201]
4. The interior of the vessel may be cleaned once per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components shall not exceed 45.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of the date of each interior cleaning. Such records shall be made readily available for District inspection for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-451-2 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION APPROVED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS IN THE LIGHT OIL WESTERN STATIONARY SOURCE UTILIZING UP TO 5 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS, FLEXIBLE PIPING, AND STINGER-TYPE INJECTION FITTINGS ON PRODUCED GAS PIPELINES

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Permittee shall notify the SJVUAPCD of each location at which an H2S scavenger chemical storage and injection operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Chemical storage and injection operations shall not be located within 1000 feet of a school. [District Rule 4102]
4. Each chemical storage tank shall have a maximum rated capacity of 500 gallons or less and up to eight injection fittings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit exempt tanks with a capacity of 250 gallons or less where the actual storage temperature does not exceed 150 deg F may be used to store H2S scavenger chemical. [District Rule 2020] Federally Enforceable Through Title V Permit
6. The maximum throughput of each chemical storage tank shall not exceed 200 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. True vapor pressure of materials stored in each chemical tank shall not exceed 3.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Total VOC emissions from all H2S scavenger injection equipment shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. On a monthly basis, to determine compliance with daily throughput limits, permittee shall maintain accurate records of average daily throughput for each tank based on purchase records. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Permittee shall maintain accurate fugitive component counts and resultant emissions calculated using Table 2-4 of U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Accurate records of the dates and amounts of chemical deliveries for each chemical injection site and fugitive component counts shall be retained and made available for District inspection upon request for a period of 5 years. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Operator shall keep records of the true vapor pressure of the chemical stored in the tank. These records shall include a laboratory analysis for TVP according to the methods described in District Rule 4623, Section 6.4 (Amended 12/20/01), MSDS which lists the true vapor pressure, or environmental data sheet which lists the true vapor pressure. Such records shall be made readily available for District inspection upon request for a period of 5 years. [District Rule 4623] Federally Enforceable Through Title V Permit

13. Injection of scavenging chemicals shall not result in an increase in air contaminant or odorous emissions at downstream production handling facilities or wastewater separators, containers, loadouts, or disposal sites. [District Rule 2010] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-463-1 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
1310 BBL FREE WATER KNOCKOUT VESSEL V-201E WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. Vessel shall vent to vapor control system listed in S-1548-144, except during periods of vessel interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vessel is a pressure vessel as defined by District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
3. Vessel appurtenances and vapor control piping shall be maintained gas-tight (as defined by Rule 4623), except during periods of vessel interior cleaning. [District Rules 4623 and 2201] Federally Enforceable Through Title V Permit
4. Prior to opening vessel for interior cleaning, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for at least 24 hours. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
6. VOC emission rate from components shall not exceed 24.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. 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 from vessel and vapor control system components (downstream of control valve between vessel and vapor control system piping) shall be reported as a deviation [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Records of annual tank inspections, maintenance, and cleaning shall be maintained at the facility for a period of 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-470-3 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
26 CYCLIC STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing valves shall remain closed or connected to production lines at all times except during periods of actual service or repair as defined in Rule 4401. [District NSR Rules and District Rule 4401] Federally Enforceable Through Title V Permit
2. All produced fluids from any well associated with this operation shall be handled only in existing closed and vapor controlled production equipment with a control efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Cyclic wells covered by this permit shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of these wells. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Fugitive emissions from all components associated with this cyclic well operation shall not exceed 30.7 lb-VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil, heavy oil, and water/oil. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
9. All other components such as diaphragms, dump arms, instruments and meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 at any one time. [District NSR Rule and District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
11. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Permittee shall maintain a current list of all cyclic wells associated with this operation, shall update the list whenever a well is added, replaced, or deleted, and such listing shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-475-2 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Operation shall include one gas/liquid separator pressure vessel at LOTS #L152. [District Rule 2201] Federally Enforceable Through Title V Permit
2. LOTS #L148 and L2340 operations shall each include one gas/liquid separator pressure vessel. [District Rule 2010] Federally Enforceable Through Title V Permit
3. LOTS #L140, L143, L145, L149, L150, L151, LX840, MR40, MR42, and L1540 operations shall each include two existing gas/liquid separator pressure vessels. [District Rule 2010] Federally Enforceable Through Title V Permit
4. LOTS #L144, L147, and LX941operations shall each include three gas/liquid separator pressure vessels. [District Rule 2010] Federally Enforceable Through Title V Permit
5. Fugitive emissions from components attached to LOTS site #L152 vessel shall not exceed 0.9 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. LOTS site #L152 shall be designed and maintained to vent only to the gas gathering system, except during periods of vessel cleaning. [District NSR Rule] Federally Enforceable Through Title V Permit
7. LOTS site #L152 vessel shall remain closed or connected to production lines at all times except during periods of sampling or maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-476-1 **EXPIRATION DATE:** 05/31/2006

SECTION: 20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
55,000 GALLON (12 FT DIAMETER X 65 FT SHELL LENGTH) FREE WATER KNOCKOUT VESSEL V-201F WITH VAPOR CONTROL LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained gas-tight, except during periods of vessel cleaning. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
2. Vessel shall be designed and maintained to vent only to the gas gathering system or the flare (S-1547-144), except during periods of vessel cleaning. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The FWKO shall be equiped with a control valve on its vapor-out line which shall be set at a sufficient pressure to prevent the backflow of tank vapors into the FWKO vessel. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Except during periods of vapor control system maintenance, and tank cleaning, vapor collection system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 24.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
9. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District NSR Rule and District Rule 4403, 5.1] Federally Enforceable Through Title V Permit
11. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District NSR Rule and District Rule 4403, 5.1] Federally Enforceable Through Title V Permit
12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 4403, 5.1] Federally Enforceable Through Title V Permit
13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District NSR Rule and District Rule 4403, 5.1] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Document -453/R-95-017, Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, emission factors, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance Division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F; solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Upon reintroducing crude oil/water to the tank, the vapor control system shall be reactivated and pressure relief valves closed. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-477-2 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Operation shall include one existing gas/liquid separator pressure vessel each at the following sites: LOTS #1-3, 2-1, 2-3, 2-4, 2-19, 3-6A, 3-10, 0116, 0122, 0155, 0213, 0233, 0244, 0253, 0277, 1278, 1817, 1827, 2922, 2932, 2955, 2965, 3324, 3331, 3344, 3362, 3364, 3375, 3417, 3435, 3447, 3534, 3548, 3549, 3550, 3657, fugitive VOC emission rate listed below does not include the existing pressure vessels at the sites identified in this condition. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Operation shall include two existing gas/liquid separator pressure vessels each at the following sites: LOTS #1383, 2018, 2764, 2816, 2944, 2987, and 3535. Fugitive VOC emission rate listed below does not include the existing pressure vessels at the sites identified in this condition. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Operation shall include one gas/liquid separator pressure vessel at the site LOTS #1231. The fugitive VOC emissions from the separator vessel shall not exceed 0.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The number of components attached to the separator at LOTS site #1231 shall not exceed the following: Gas Service - 1 pressure relieve valve and three flanges; Liquid Service - 1 valve and 6 flanges. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, or other factors approved by the district. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-478-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240B VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-479-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240C VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-480-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240D VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-481-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240E VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All piping valves and fittings shall be constructed and maintained in a gas tight condition, except during periods of vessel interior cleaning or inspection. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Vessel is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623] Federally Enforceable Through Title V Permit
4. When in service, vessel shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the vessel from the vapor control system, operator shall drain all liquid from the vessel to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the vessel. The operator shall notify the District prior to reconnecting the vessel to the vapor control system to recommence operation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 30.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except for periods of vessel cleaning or inspection, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after returning the vessel to service. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations . [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-482-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Only water with a maximum VOC content of 35 milligram/liter shall be placed or stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
2. VOC content of the water stored or placed in this tank shall be determined annually by sample analysis using one of the approved methods listed in Rule 1020 or other District approved method. [District Rules 1020 and 4623] Federally Enforceable Through Title V Permit
3. Tank gauging or sampling devices shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. All piping, valves and fittings shall be constructed and maintained in a leak-free condition, except during periods of vessel interior cleaning or inspection. [District NSR Rule] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When in service, tank shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the tank from the vapor control system, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the tank. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 7.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. The facility operator upon detection of a component having a reading greater than 10,000 ppmv shall record the reading for that component and affix a weatherproof readily visible tag bearing the date on which the reading is detected. The tag shall remain in place until the component is repaired, reinspected and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District NSR Rule] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Leak rate in ppmv; 3) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after returning the tank to service. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain a record of the lab analysis, sampling date and VOC content of the water in milligrams per liter. [District Rule 2080] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-483-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. Only water with a maximum VOC content of 35 milligram/liter shall be placed or stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
2. VOC content of the water stored or placed in this tank shall be determined annually by sample analysis using one of the approved methods listed in Rule 1020 or other District approved method. [District Rules 1020 and 4623] Federally Enforceable Through Title V Permit
3. Tank gauging or sampling devices shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. All piping, valves and fittings shall be constructed and maintained in a leak-free condition, except during periods of vessel interior cleaning or inspection. [District NSR Rule] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When in service, tank shall vent to vapor control system listed in S-1548-144 , except during periods of vessel interior cleaning. Prior to disconnecting the tank from the vapor control system, operator shall drain all liquid from the tank to the maximum extent feasible and shall operate the vapor control system for 24 hours. The vapor control system connection(s) shall be blinded off when disconnected from the tank. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 7.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. The facility operator upon detection of a component having a reading greater than 10,000 ppmv shall record the reading for that component and affix a weatherproof readily visible tag bearing the date on which the reading is detected. The tag shall remain in place until the component is repaired, reinspected and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District NSR Rule] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Leak rate in ppmv; 3) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after returning the tank to service. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain a record of the lab analysis, sampling date and VOC content of the water in milligrams per liter. [District Rule 2080] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-484-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
3,000 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 7.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given tank is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

14. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

17. This tank shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

18. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

19. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

20. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

22. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

23. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

24. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

26. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-486-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-310A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 8.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given tank is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

14. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

17. This tank shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

18. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

19. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

20. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit
22. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit
23. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit
24. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit
25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit
26. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit
27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-487-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-320A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 5.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given tank is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

14. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

17. This tank shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

18. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

19. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

20. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

22. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

23. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

24. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

26. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-488-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-330A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 5.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given tank is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

14. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

17. This tank shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

18. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

19. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

20. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

22. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

23. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

24. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

26. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-489-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,700 GALLON (84" DIA X 72" TALL) INDUCED GAS FLOTATION UNIT V-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel 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. [District Rule 4623, 5.1] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. A 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, 3.11 and 6.4.8] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel vented to the vapor recovery system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Document -453/R-95-017, Protocol for Equipment Leak Emissions Estimates. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 8.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this vessel associated with the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane), the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this rule. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given vessel is found to leak above the leak free standard during an annual inspection, then quarterly inspections of that component type on the vessel or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to be leak free (<10,000 ppmv), inspections interval may revert to annual. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking above the leak free standard on two consecutive annual inspections is considered a violation, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

14. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5.1] Federally Enforceable Through Title V Permit

17. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623, 5.7.5.4] Federally Enforceable Through Title V Permit

18. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5.4.5] Federally Enforceable Through Title V Permit

19. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5.4.6] Federally Enforceable Through Title V Permit

20. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 4623, 5.7.5.4.10] Federally Enforceable Through Title V Permit

22. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5.5.1] Federally Enforceable Through Title V Permit

23. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5.5.2] Federally Enforceable Through Title V Permit

24. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5.6.1] Federally Enforceable Through Title V Permit

25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5.6.2] Federally Enforceable Through Title V Permit

26. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5.6.3] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-497-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
1,300 BBL (12 FT DIAMETER BY 65 FT SHELL LENGTH) FREE WATER KNOCK OUT V-201G VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel shall vent to the vapor control system listed on permit S-1548-144. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak and are a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any vessel gauging or sampling device on a vessel 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 NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from CAPCOA 's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-2c (Feb 1999), Screening Range Emissions Factors. [District NSR Rule] Federally Enforceable Through Title V Permit
6. VOC emission rate from components in gas and light crude oil service associated with this emissions unit shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit
8. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit

10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit

11. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Permittee shall notify the APCO in writing at least three (3) days prior to performing vessel degassing and interior vessel cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the vessel being degassed, 2) the date and time that vessel degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the vessel, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

14. This vessel shall be degassed before commencing interior cleaning by one of the following: 1) exhausting VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or; 2) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water. or produced water derived from crude oil having a TVP less than 0.5 psia, or; 3) by displacing VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas, or; 4) by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

15. During vessel degassing, the operator shall discharge or displace organic vapors contained in the vessel vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

16. To facilitate connection to an external APCO-approved recovery system, a suitable vessel fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit

17. This vessel shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 2080] Federally Enforceable Through Title V Permit

18. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

19. While performing vessel cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

21. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

24. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-498-1 **EXPIRATION DATE:** 05/31/2006

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
40,000 BBL FIXED-ROOF CLARIFIER TANK T-200A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. All piping, valves and fittings shall be constructed and maintained in a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) condition except as provided below. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
2. For leak detection and repair (LDAR) monitoring, a leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) cover which shall be closed at all times except during gauging or sampling. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate from components in gas and light crude oil service associated with this emission unit shall be less than 9.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), 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 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Leaks measuring > 500 ppmv and < 10,000 ppmv, or leaks measuring > 10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623] Federally Enforceable Through Title V Permit

9. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: (a) Eliminate the leak within 8 hours after detection; or (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; (c) Eliminate the leak within 48 hours after minimization; and (d) In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rules Rule 4623] Federally Enforceable Through Title V Permit

10. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following (1) type of component leaking; (2) date of leak detection, and method of detection; (3) date and emission level of recheck after leak is repaired; (4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit

12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

13. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedure as described in Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

14. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Permittee shall notify the District Compliance division in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] Federally Enforceable Through Title V Permit

16. All records shall be maintained and retained on the premises for a period of at least 5 years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-499-3 **EXPIRATION DATE:** 05/31/2006

SECTION: NW 20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
5,000 GALLON OIL/WATER TANK T-410 AND AUXILIARY EQUIPMENT INCLUDING TWO DECANTER CENTRIFUGES, ONE VERTICAL CENTRIFUGE, ONE AUGER, TWO OIL/WATER PUMPS AND FOUR ROLL-OFF BINS (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
2. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The tank shall not store organic liquids with a true vapor pressure (TVP) greater than 4.65 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Tank shall be operated at a constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from the tank shall not exceed 1.1 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Only four roll-off bins shall be used at any given time. No onsite storage of more than four filled roll-off bins is allowed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Daily VOC emissions from each roll-off bin shall not exceed 1.9 lb VOC/day. Only roll-bins with a surface area of less than 148.5 square feet shall be used to ensure compliance with the VOC emissions limit. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emission rate from fugitive components in light crude oil service associated with this emissions unit shall not exceed 1.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 4623] Federally Enforceable Through Title V Permit
10. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, during sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623] Federally Enforceable Through Title V Permit
13. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
14. If the TVP of the organic liquid stored in this tank is greater than 1.5 psia, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The following components can be excluded from the fugitive component count: 1) components handling produced fluids with an API gravity less than 30 degrees; 2) components in water/oil service (water content >50%); and 3) components handling fluid streams with a VOC content < 10%. [District Rule 2201] Federally Enforceable Through Title V Permit
16. True vapor pressure of tank contents and API gravity shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored, according to the approved test methods listed in District Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. Permittee shall keep accurate records of true vapor pressure, storage temperature, API gravity, and types of liquids stored for a period of five years, and shall make such records readily available for District inspection upon request. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-501-1 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
55,000 GALLON (12 FT DIAMETER X 65 FT LENGTH) FREE WATER KNOCKOUT VESSEL V-201H WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained gas-tight, except during periods of vessel cleaning. [District Rules 2201and 2520] Federally Enforceable Through Title V Permit
2. Vessel shall be designed and maintained to vent only to the gas gathering system or the flare (S-1547-144), except during periods of vessel cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The FWKO shall be equiped with a control valve on its vapor-out line which shall be set at a sufficient pressure to prevent the backflow of tank vapors into the FWKO vessel. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during periods of vapor control system maintenance, and tank cleaning, vapor collection system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All piping, valves and fittings associated with this vessel shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane with an instrument calibrated with methane. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
11. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 4409] Federally Enforceable Through Title V Permit
13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance Division at least 72 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Upon reintroducing crude oil/water to the tank, the vapor control system shall be reactivated and pressure relief valves closed. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-503-0 **EXPIRATION DATE:** 05/31/2006

EQUIPMENT DESCRIPTION:
40,000 BBL FIXED-ROOF CLARIFIER TANK T-200B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. All piping, valves and fittings shall be constructed and maintained in a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) condition except as provided below. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
2. For leak detection and repair (LDAR) monitoring, a leak is defined as a reading in excess of 500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free (<10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) cover which shall be closed at all times except during gauging or sampling. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components in gas and light crude oil service associated with this emission unit shall be less than 9.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. For the purposes of company conducted inspections, if any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21) , 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 Rules 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
8. Leaks measuring > 500 ppmv and <10,000 ppmv, or leaks measuring >10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components > 10,000 ppmv discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rules Rule 4623] Federally Enforceable Through Title V Permit
10. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date of leak detection, and method of detection; 3) date and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after leak detection. [District Rule 2520] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedure as described in Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall notify the District Compliance division in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] Federally Enforceable Through Title V Permit
16. Operator shall notify the EPA and District of the date construction is commenced postmarked no later than 30 days after such date. Notification shall include the District-approved Operating Plan. [40 CFR 60.113b(c)(1)]] Federally Enforceable Through Title V Permit
17. Operator shall notify the EPA and the District of the actual date of initial startup postmarked within 15 days of such date. [40 CFR 60.7(a)(3] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on the premises for a period of at least 5 years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1548-504-0 **EXPIRATION DATE:** 05/31/2006

SECTION: 20 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
14,000 GALLON (7.5 FT DIAMETER X 40 FT LENGTH) INDUCED STATIC FLOTATION CELL V-240F CONNECTED TO VAPOR CONTROL SYSTEM LISTED IN S-1548-144 (DEHY 20)

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning. 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, as methane, above background on a portable hydrocarbon detection instrument that is calibrated as methane in accordance with EPA Test Method 21. [District Rule 2201& 2520] Federally Enforceable Through Title V Permit
2. Tank gauging or sampling devices shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
3. The induced static flotation unit is a pressure vessel as defined by District Rule 4623, Section 3.20. [District Rule 4623]
4. When in service, the vessel shall vent only to the vapor control system listed in S-1547-144, except during periods of vessel cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the vapor control components associated with this unit shall not exceed 13.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All components attached to this vessel shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid, light oil and heavy oil. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
7. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All components containing VOCs shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rules 2201 4409] Federally Enforceable Through Title V Permit
11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Document -453/R-95-017, Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, emission factors, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 1 hour after detection of leak; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rules 2201 and 4409 Sec. 5.3.6]
14. Operator shall maintain an inspection log containing the following 1) Number and type of component leaking; 2) Date of leak detection, and method of detection; 3) Date of repair, replacement or removal from operation of leaking component; 4) Date and emission level of recheck after leak is repaired; 5) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 6) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. The operator shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rules 2201 4409 Sec 6.2]
15. This permit authorizes induced flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall conduct induced flotation unit cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Induced flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Permittee shall notify the District Compliance Division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = induced static flotation unit volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The induced static flotation unit shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Within 48 hours after refilling the induced flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date the cleaning was initiated, the date cleaning was completed, the method of cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

PERMIT-EXEMPT EQUIPMENT REGISTRATION (PEER)

PEER NO: S-1548-1-0 **EXPIRATION DATE:** 04/03/2014

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

FACILITY LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
CA

SECTION: 4 **TOWNSHIP:** 27S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
3.268 MMBTU/HR NATURAL GAS-FIRED NATURAL DRAFT PROCESS HEATER WITH TWO 1.634 MMBTU/HR C.E. NATCO MODEL 18-1.25 MM-T BURNERS (THIS UNIT VENTS TO PERMIT UNIT S-1548-120)

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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]
4. The owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4307]
5. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4307]
6. The owner/operator shall maintain records to verify that the required tune-ups have been performed. [District Rule 4307]
7. Tune-up records shall include: 1) date of tune-up, 2) name of technician performing tune-up, and 3) reason that they are qualified. [District Rule 4307]

CONDITIONS CONTINUE ON NEXT PAGE

This PEER remains valid through the expiration date listed above, subject to payment of the annual registration fees and compliance with the PEER conditions and all applicable local, state, and federal regulations. This PEER is valid only within the San Joaquin Valley Air Pollution Control District. Any equipment or operation change may require a PEER application be filed with the District.

Seyed Sadredin
Executive Director / APCO

David Warner
Director of Permit Services

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

8. 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 Rules 4307]

9. This unit shall be in full compliance with District Rule 4307 by the applicable compliance plan. The full compliance date for Group 1 units is July 1, 2008. The full compliance date for Group 2 units is July 1, 2009. If this facility has only one unit subject to Rule 4307, the unit falls under Group 2. [District Rule 4307]

ATTACHMENT C

Detailed Facility List

Detailed Facility Report

For Facility=1548 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

AERA ENERGY LLC
LIGHT OIL WESTERN STATIONARY SOURCE
CA

FAC # **S 1548**
STATUS: **A**
TELEPHONE: **6616655279**

TYPE: **TitleV**
TOXIC ID: **50230**

EXPIRE ON: 05/31/2006
AREA: 22 / 31
INSP. DATE: 05/12

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1548-45-6	2,730,000 Gal storage tank	3020-05 G	1	382.00	382.00	A	2,730,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-471 WITH VAPOR RECOVERY SYSTEM WITH VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) AND PIPING TO FIELD GAS SYSTEM SHARED WITH S-1548-143 (TANK #T-470)
S-1548-113-1	584,318,750 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	584,318,750 BTU/HR EMERGENCY FLARE (LOST HILLS 1 LEASE)
S-1548-115-6	450 BHP	3020-10 D	1	479.00	479.00	A	450 BHP AJAX DPC450 CLEANBURN IC ENGINE POWERING COMPRESSOR UNIT #5, WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)
S-1548-116-6	450 BHP	3020-10 D	1	479.00	479.00	A	450 BHP AJAX DPC450 CLEANBURN I.C. ENGINE POWERING COMPRESSOR UNIT #6 WITH ASSOCIATE GAS AND CONDENSATE HANDLING EQUIPMENT, INCLUDING SCRUBBER(S), VESSEL(S), COOLER(S), AND LIQUID TRANSFER PUMP(S) (LOST HILLS ONE)
S-1548-120-12	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON CONE ROOF REJECT OIL TANK F-3005 WITH VAPOR CONTROL COMPRESSOR, COOLERS AND LIQUID KNOCKOUTS, SAND BASIN, ISOLATION VALVE, AND 3.3 MMBTU/HR PERMIT EXEMPT HEATER TREATER
S-1548-121-6	126,000 gallon tank	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED CONE ROOF LACT TANK WITH ISOLATION VALVE VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120
S-1548-122-5	17,579 gallons	3020-05 B	1	93.00	93.00	A	24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3002 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120
S-1548-126-5	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON FIXED ROOF CONE BOTTOM CLARIFIER TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120
S-1548-134-6	625 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	625 MMBTU/HR LIMITED USE FLARE
S-1548-140-6	3,400 hp electric motors	3020-01 H	1	1,030.00	1,030.00	A	THREE 800 HP, AND ONE 1,000 HP ELECTRIC MOTOR DRIVEN FUEL GAS COMPRESSORS, EACH WITH A FUEL GAS & A SURGE DRUM AND ASSOCIATED PIPING (COMPRESSOR STATION #49)
S-1548-143-4	2,730,000 GALLONS	3020-05 G	1	382.00	382.00	A	2,730,000 GALLON FIXED ROOF CRUDE OIL STORAGE TANK T-470 (ALSO PERMITTED AS S-1547-384 IN THE HEAVY OIL SS) WITH SHARED VAPOR RECOVERY SYSTEM DESCRIBED ON S-1548-45
S-1548-144-41	504,000 gallons	3020-05 F	1	301.00	301.00	A	504,000 GALLON FIXED ROOF CLARIFIER TANK 201A W/ VAPOR CONTROL COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S) & PIPING TO FIELD GAS SYSTEM OR AIR ASSISTED KALDAIR FLARE W/PLA-18 FLARE TIP
S-1548-145-4	504,000 gallon storage tank	3020-05 F	1	301.00	301.00	A	12,000 BBL FIXED ROOF CLARIFIER TANK #T201B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20

Detailed Facility Report

For Facility=1548 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-1548-146-4	504,000 gallon storage tank	3020-05 F	1	301.00	301.00	A	12,000 BBL FIXED ROOF CLARIFIER TANK #T202A WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20
S-1548-147-4	504,000 gallon storage tank	3020-05 F	1	301.00	301.00	A	12,000 BBL FIXED ROOF CLARIFIER TANK #T202B WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20
S-1548-148-4	1,680,000 gallon storage tank	3020-05 G	1	382.00	382.00	A	40,000 BBL FIXED ROOF STORAGE TANK #T211 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20
S-1548-149-4	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL CRUDE OIL SKIM TANK #T242 WITH VAPOR CONTROL DESCRIBED IN S-1548-144 - DEHY 20:
S-1548-171-4	1,215 BHP	3020-10 F	1	749.00	749.00	A	1,215 BHP WAUKESHA MODEL L-5790 GSI NATURAL GAS-FIRED IC ENGINE (SERIAL # C-12312/1) WITH 3-WAY CATALYST AND AIR/FUEL RATIO CONTROLLER DRIVING A GAS COMPRESSOR (MID BELRIDGE COMPRESSOR STATION #26)
S-1548-172-4	1,478 BHP	3020-10 F	1	749.00	749.00	A	1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)
S-1548-173-4	1,478 BHP	3020-10 F	1	749.00	749.00	A	1,478 HBP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)
S-1548-174-4	1,478 BHP	3020-10 F	1	749.00	749.00	A	1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)
S-1548-175-4	1,478 BHP	3020-10 F	1	749.00	749.00	A	1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)
S-1548-178-4	SULFATREAT FUEL GAS SCRUBBER	3020-06	1	105.00	105.00	A	SULFATREAT FUEL GAS SCRUBBING SYSTEM WITH LIQUID KNOCKOUT VESSEL, CONTACTOR VESSEL AND ASSOCIATED PIPING AND COMPONENTS. BELRIDGE COMPRESSOR STA #26
S-1548-385-6	420,000 gallons	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120
S-1548-386-6	420,000 gallons	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1548-120
S-1548-389-7	225 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	223,125,000 BTU/HR COANDA EFFECT SAFETY FLARE (WESTSIDE)
S-1548-400-13	498 bhp	3020-10 D	1	479.00	479.00	A	498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)

Detailed Facility Report

For Facility=1548 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-1548-411-13	498 bhp	3020-10 D	1	479.00	479.00	A	498 BHP CATERPILLAR GAS FIRED/FIELD GAS FIRED IC ENGINE WITH THREE-WAY CATALYTIC CONVERTER AND O2 CONTROLLER DRIVING A GAS COMPRESSOR (COMPRESSOR STATION 49)
S-1548-418-4	357,000 gallons	3020-05 E	1	246.00	246.00	A	8,500 BBL WATER STORAGE TANK T-231A SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144
S-1548-419-4	357,000 gallons	3020-05 E	1	246.00	246.00	A	8,500 BBL WATER STORAGE TANK T-231B SERVED BY VAPOR CONTROL SYSTEM DESCRIBED IN S-1548-144
S-1548-420-5	24,300 gallons	3020-05 C	1	135.00	135.00	A	24,300 GALLON (10 FT. DIA BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3004 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120
S-1548-423-3	300 TEOR WELLS	3020-09 B	300	9.34	1,400.00	A	300 THERMALLY ENHANCED EXISTING PRODUCTION WELLS AND EXISTING WELL TEST PRESSURE VESSELS NOT UTILIZED FOR PERMANENT GAS/LIQUID SEPARATION IN SOUTH BELRIDGE WITH EXISTING CASING LINES DISCHARGING ONLY TO EXISTING PRODUCED FLUID LINES DISCHARGING ONLY TO EXISTING VAPOR CONTROLLED SECTION 20 DEHYDRATION FACILITY EQUIPMENT WITH PRODUCED GAS PIPED TO EXISTING BELRIDGE GAS PLANT.
S-1548-424-4	825 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	825 MMBTU/HR KALDAIR INDAIR MODEL I-15-H-VS LIMITED USE FLARE WITH COANDA EFFECT FLARE TIP (COMPRESSOR STATION 49)
S-1548-426-0	400 HORSEPOWER ELECTRIC MOTOR	3020-01 F	1	607.00	607.00	A	COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 400 HP GE ELECTRIC MOTOR - STATION #26
S-1548-427-0	800 HORSEPOWER	3020-01 G	1	815.00	815.00	A	COOPER-BESSEMER FUEL GAS COMPRESSOR WITH FUEL GAS DRUM AND SURGE DRUM POWERED BY A 800 HP GE ELECTRIC MOTOR - STATION #50
S-1548-428-5	25,900 GALLONS	3020-05 C	1	135.00	135.00	A	617 BBL INDUCED STATIC FLOTATION CELL V-240 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20
S-1548-429-5	5900 GALLONS	3020-05 B	1	93.00	93.00	A	140 BBL CRUDE OIL PROCESS DRAIN VESSEL V-244 WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20
S-1548-433-4	1,680 BHP	3020-10 F	1	749.00	749.00	A	1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR
S-1548-434-4	1,680 BHP	3020-10 F	1	749.00	749.00	A	1,680 BHP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR
S-1548-435-4	1,680 BHP	3020-10 F	1	749.00	749.00	A	1,680 HP WAUKESHA MODEL 7044 GSI NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH PCV, O2 CONTROLLER, AND 3-WAY CATALYST POWERING A GAS COMPRESSOR
S-1548-439-5	55,000 GALLONS	3020-05 D	1	185.00	185.00	A	1310 BBL FREE WATER KNOCKOUT VESSEL V-201A WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20

Detailed Facility Report

For Facility=1548 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-1548-440-5	55,000 GALLONS	3020-05 D	1	185.00	185.00	A	1310 BBL FREE WATER KNOCKOUT VESSEL V-201B WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20
S-1548-441-5	55,000 GALLONS	3020-05 D	1	185.00	185.00	A	1310 BBL FREE WATER KNOCKOUT VESSEL V-201C WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20
S-1548-442-5	55,000 GALLONS	3020-05 D	1	185.00	185.00	A	1310 BBL FREE WATER KNOCKOUT VESSEL V-201D WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144- DEHY 20
S-1548-443-1	24,300-GALLON VESSEL	3020-05 C	1	135.00	135.00	A	24,300 GALLON (10 FT. DIA. BY 40 FT. LONG SHELL) FREE WATER KNOCKOUT VESSEL V-3005 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON S-1548-120
S-1548-444-3	29,400 gallons	3020-05 C	1	135.00	135.00	A	29,400 GALLON FREE WATER KNOCKOUT VESSEL (V-300) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-172, '-173, '-174, '-175, AND '-427) AND CONNECTED TO S-1547-1079 CASING VENT VAPOR RECOVERY AND CONTROL SYSTEM
S-1548-445-1	42,300 gallons	3020-05 C	1	135.00	135.00	A	42,300 GALLON FREE WATER KNOCKOUT VESSEL (V-100) WITH VAPOR PIPING TO GAS COMPRESSORS (S-1548-171 AND '-426)
S-1548-451-2	2,500 Gallons	3020-05 A	1	75.00	75.00	A	HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION APPROVED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS IN THE LIGHT OIL WESTERN STATIONARY SOURCE UTILIZING UP TO 5 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS, FLEXIBLE PIPING, AND STINGER-TYPE INJECTION FITTINGS ON PRODUCED GAS PIPELINES
S-1548-463-1	55,020 gallons	3020-05 D	1	185.00	185.00	A	1310 BBL FREE WATER KNOCKOUT VESSEL V-201E WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 - DEHY 20
S-1548-470-3	8 Wells, large producer	3020-09 A	8	9.34	74.72	A	26 CYCLIC STEAM ENHANCED WELLS WITH CLOSED CASING VENTS
S-1548-475-2	9,900 gal	3020-05 B	1	93.00	93.00	A	LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (LOST HILLS)
S-1548-476-1	55,000 gallons	3020-05 D	1	185.00	185.00	A	55,000 GALLON (12 FT DIAMETER X 65 FT SHELL LENGTH) FREE WATER KNOCKOUT VESSEL V-201F WITH VAPOR CONTROL LISTED ON S-1548-144 (DEHY 20)
S-1548-477-2	19,300 gal	3020-05S B	1	44.00	44.00	A	LIGHT OIL TEST STATION (LOTS) SEPARATOR VESSELS (BELRIDGE)
S-1548-478-1	26,000 GALLON	3020-05 C	1	135.00	135.00	A	26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240B VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-479-1	26,000 GALLON	3020-05 C	1	135.00	135.00	A	26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240C VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-480-1	26,000 GALLONS	3020-05 C	1	135.00	135.00	A	26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240D VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)

Detailed Facility Report

For Facility=1548 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-1548-481-1	26,000 GALLONS	3020-05 C	1	135.00	135.00	A	26,000 GALLON (10 FT DIAMETER X 40 FT SHELL LENGTH) INDUCED STATIC FLOTATION CELL V-240E VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-482-3	630,000 GALLONS	3020-05 F	1	301.00	301.00	A	15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-483-3	630,000 GALLONS	3020-05 F	1	301.00	301.00	A	15,000 BBL (60.0 FT DIAMETER BY 32.0 FT SHELL HEIGHT) FILTER SURGE TANK T-220B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-484-3	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	3,000 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-486-3	21,000 GALLONS	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-310A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-487-3	21,000 GALLONS	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-320A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-488-3	21,000 GALLONS	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL/PRODUCED WATER STORAGE TANK T-330A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-489-3	1,700 GALLONS	3020-05 A	1	75.00	75.00	A	1,700 GALLON (84" DIA X 72" TALL) INDUCED GAS FLOTATION UNIT V-300A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-497-1	54,600 GALLONS	3020-05 D	1	185.00	185.00	A	1,300 BBL (12 FT DIAMETER BY 65 FT SHELL LENGTH) FREE WATER KNOCK OUT V-201G VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-498-1	1,680,000 GALLONS	3020-05 G	1	382.00	382.00	A	40,000 BBL FIXED-ROOF CLARIFIER TANK T-200A VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-499-3	5000 gallons	3020-05 B	1	93.00	93.00	A	5,000 GALLON OIL/WATER TANK T-410 AND AUXILIARY EQUIPMENT INCLUDING TWO DECANTER CENTRIFUGES, ONE VERTICAL CENTRIFUGE, ONE AUGER, TWO OIL/WATER PUMPS AND FOUR ROLL-OFF BINS (DEHY 20)
S-1548-501-1	55,000 GALLONS	3020-05 D	1	185.00	185.00	A	55,000 GALLON (12 FT DIAMETER X 65 FT LENGTH) FREE WATER KNOCKOUT VESSEL V-201H WITH VAPOR CONTROL AS DESCRIBED IN S-1548-144 (DEHY 20)
S-1548-503-0	1,680,000 gallons	3020-05 G	1	382.00	382.00	A	40,000 BBL FIXED-ROOF CLARIFIER TANK T-200B VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1548-144 (DEHY 20)
S-1548-504-0	14,000 gallon	3020-05 B	1	93.00	93.00	A	14,000 GALLON (7.5 FT DIAMETER X 40 FT LENGTH) INDUCED STATIC FLOTATION CELL V-240F CONNECTED TO VAPOR CONTROL SYSTEM LISTED IN S-1548-144 (DEHY 20)

Detailed Facility Report

For Facility=1548 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

Number of Facilities Reported: 1

ATTACHMENT D

Current District Rule SIP Comparisons

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 nspiriting 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 quality 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
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: 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
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: 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. The operation of a flare for the purpose of performing equipment maintenance.		
Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.		X
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.	X	X
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.	X	X
Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.		X
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.		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. Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal	X	X

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		
The operator of any source subject to this rule shall comply with the following requirements: Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7. The flame shall be present at all times when combustible gases are vented through the flare. 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.	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, or an equivalent device, 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, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		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. The requirements of this section shall not apply to Coanda effect flares.		
Ground-level enclosed flares shall meet the following emission standards: Flares without Steam Assist Heat Release Rate: <10 MMBtu VOC limit = 0.0051 (lb/MMBtu) Nox limit = 0.0952 (lb/MMBtu) Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu) Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu) Flares with Steam Assist All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)	X	X
Flare Minimization Plan 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.		X
Petroleum Refinery SO_2 Performance Targets 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. 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.		X
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		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		
Compliance Determination 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). 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. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.	X	X
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.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Flare Reporting Unplanned Flaring Event 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. Reportable Flaring Event 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.		X
Annual Monitoring Report 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		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
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.		
<u>Test Methods</u> 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. 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: VOC in lb/MMBtu = $\frac{(ppmv\ dry)\ x\ (F, dscf / MMBtu)}{(1.135 x 10^6)\ x\ (20.9 - \%O_2)}$ Where: F = As determined by EPA Method 19 NOx emissions in pounds per million BTU shall be determined by using EPA Method 19. NOx and O_2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Testing and Sampling Methods for Flare Monitoring 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.		X
Flow Verification Test Methods 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.		X
Flare Minimization Plan 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:		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
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 though 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. 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. 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		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
FMP submittals are only required if: The equipment change would require an authority to construct (ATC) and would impact the emissions from 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. 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.		
<u>Vent Gas Composition Monitoring</u> 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. Sampling that meets the following requirements: If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. Samples shall be analyzed pursuant to Section 6.3.4. Integrated sampling that meets the following requirements: If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample		**X**

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
container is full. If sampling is still required pursuant to Section 6.6.2.1, a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. Samples shall be analyzed pursuant to Section 6.3.4. Continuous analyzers that meet the following requirements: The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale. Continuous analyzers employing gas chromatography that meet the following requirements: The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. The gas chromatography system shall be maintained to be accurate within 5% of full scale. Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested pursuant to a method in Section 6.3.4. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11. <u>Pilot and Purge Gas Monitoring</u> 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. <u>Water Seal Monitoring</u> Effective on and after July 1, 2011, the operator of a		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
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. General Monitoring 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: Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. Video Monitoring 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,		

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 (6/16/2011) to Current SIP Version (12/14/2006)

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	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 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.		**This exemption is obsolete and removed from the non-SIP version of the rule. Therefore, non-SIP version of rule is as stringent as 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.	4.2 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; 4.2.1 the production zone on that property has not been injected with steam during the preceding two (2) years, 4.2.2 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.2.3 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. 3 The requirements of this rule shall not apply to up to 40 cyclic wells owned by a company and undergoing well stimulation, provided; 4.3.1 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the compny, and 4.3.2 the operation is under District permit.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions (continued)	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. 4.5.1 the well is located more than 1000 feet from an existing well vent vapor control system operated by the company, and 4.5.2 the operation is under District permit.	4.4 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. 4.4.1 the well is located more than 1000 feet from an existing well vent vapor 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 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	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: 4.6.1 A list of wells that are exempted by Section 4.6 shall be submitted to the APCO by July 15, 1998. 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.		**This exemption has been removed in the non-SIP version of the rule since it is obsolete.** **Therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions (continued)	4.7 The requirements of this rule shall not apply to components serving the produced fluid line.	4.5 The requirements of this rule shall not apply to components serving the produced fluid line.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	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. 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. 4.8.2 Components buried below ground. 4.8.3 Components used exclusively in vacuum service. 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.	4.6 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 4.6.1 through Section 4.6.4. An operator claiming an exemption pursuant to Section 4.6 shall provide proof of the applicable criteria to the satisfaction of the APCO. 4.6.1 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. 4.6.2 Components buried below ground. 4.6.3 Components used exclusively in vacuum service. 4.6.4 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.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	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.	4.7 The requirements of Section 5.4.1 through Section 5.4.7 of this rule shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight or less (≤10 wt.%), as determined by the test methods in Section 6.3.4.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
5.0 Requirements	Section 5.1 through Section 5.4 shall be effective until December 31, 2008. Section 5.5 through Section 5.9 shall be effective on and after January 1, 2009.		**Sections 5.1 through 5.4 of the SIP Approved version are obsolete. Therefore these requirements were not included in the Non-SIP version .** **Note: Since sections 5.1 through 5.4 of the SIP approved version is obsolete it will not be discussed in this evaluation.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	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. 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. 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.	5.1 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. 5.1.1 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. 5.1.2 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.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**
5.0 Requirements (continued)	5.6 Determination of Compliance with the Leak Standards 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. 5.6.2 Leak Standards The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1: 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. 5.6.2.2 Existence of a component with a major liquid leak as defined in Section 3.0. 5.6.2.3 Existence of a component with a gas leak greater than 50,000 ppmv. 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. 5.6.2.4.1 A minor liquid leak, or 5.6.2.4.2 A minor gas leak, or 5.6.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.	5.2 Determination of Compliance with the Leak Standards 5.2.1 An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 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 5.2.2 exist at the facility. 5.2.2 Leak Standards The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1: 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 2. 5.6.2.4.1 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.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

<table>
<tr><th>Requirement Category</th><th>SIP Version of Rule 4401 (12/14/2006)</th><th>Non-SIP Version of Rule 4401 (6/16/2011)</th><th>Conclusion</th></tr>
<tr><td></td><td>Table 3 Number of Allowable Leaks<table><tr><th>Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th><th>Number of Allowable Leaks</th></tr><tr><td>1 to 25</td><td>3</td></tr><tr><td>26 to 50</td><td>6</td></tr><tr><td>51 to 100</td><td>8</td></tr><tr><td>101 to 250</td><td>10</td></tr><tr><td>251 to 500</td><td>15</td></tr><tr><td>More than 500</td><td>One (1) for each 20 wells tested with a minimum of 50 wells tested.</td></tr></table></td><td>Table 2 Number of Allowable Leaks<table><tr><th>Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th><th>Number of Allowable Leaks</th></tr><tr><td>1 to 25</td><td>3</td></tr><tr><td>26 to 50</td><td>6</td></tr><tr><td>51 to 100</td><td>8</td></tr><tr><td>101 to 250</td><td>10</td></tr><tr><td>251 to 500</td><td>15</td></tr><tr><td>More than 500</td><td>One (1) for each 20 wells tested with a minimum of 50 wells tested.</td></tr></table></td><td></td></tr>
<tr><td>5.0 Requirements (continued)</td><td>5.7 An operator shall comply with the following operating requirements:

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.

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.

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.</td><td>5.3 An operator shall comply with the following operating requirements:

5.3.1 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.

5.3.2 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.

5.3.3 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.</td><td>No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.</td></tr>
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Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
5.0 Requirements (continued)	**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. 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. 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. 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: 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. 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. 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: 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. 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. 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. 5.8.5 An operator shall inspect all unsafe-to-monitor components during each turnaround. 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.	**5.4 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. 5.4.1 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. 5.4.2 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. 5.4.3 In addition to the inspections required by Section 5.4.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 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. 5.4.3.2 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. 5.4.4 In addition to the inspections required by Section 5.4.1, Section 5.8.2 and Section 5.8.3, 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 5.4.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. 5.4.5 An operator shall inspect all unsafe-to-monitor components during each turnaround. 5.4.6 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.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
5.0 Requirements (continued)	**5.9 Leak Repair Requirements** 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: 5.9.1.1 The date and time of leak detection. 5.9.1.2 The date and time of leak measurement. 5.9.1.3 For a gaseous leak, the leak concentration in ppmv. 5.9.1.4 For a liquid leak, whether it is a major liquid leak or a minor liquid leak. 5.9.1.5 Whether the component is an essential component, an unsafe-to-monitor component, or a critical component. 5.9.2 An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: 5.9.2.1 Repaired or replaced the leaking component, and 5.9.2.2 Re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 The component is found to be in compliance with the requirements of this rule. 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. 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. 5.9.4.1 Repair or replace the leaking component; or 5.9.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 5.9.4.3 Remove the leaking component from operation. 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. 5.9.6 The time of the initial leak detection shall be the start of the repair period specified in Table 4 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.	**5.5 Leak Repair Requirements** 5.5.1 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: 5.5.1.1 The date and time of leak detection. 5.5.1.2 The date and time of leak measurement. 5.5.1.3 For a gaseous leak, the leak concentration in ppmv. 5.5.1.4 For a liquid leak, whether it is a major liquid leak or a minor liquid leak. 5.5.1.5 Whether the component is an essential component, an unsafe-to-monitor component, or a critical component. 5.5.2 An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: 5.5.2.1 Repaired or replaced the leaking component, and 5.5.2.2 Re-inspected the component using the test method in Section 6.3.3, and 5.5.2.3 The component is found to be in compliance with the requirements of this rule. 5.5.3 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. 5.5.4 Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.5.4.1, Section 5.5.4.2, or Section 5.5.4.3 as soon as practicable but not later than 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. 5.5.5 The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. 5.5.6 The time of the initial leak detection shall be the start of the repair period specified in Table 3 5.5.7 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	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
6.0 Administrative Requirements	**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. 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. 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. 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. 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. 6.1.5 Effective on and after January 1, 2009, the inspection log maintained pursuant to Section 6.4. 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. 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. 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. 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. 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. 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.	**6.1 Recordkeeping and Submissions** An operator shall maintain the records required by Section 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request. 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. 6.1.2 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. 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. 6.1.4 The inspection log maintained pursuant to Section 6.4. 6.1.5 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. 6.1.6 An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5. 6.1.7 An operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. 6.1.8 An operator shall keep a list of all gauge tanks, as defined in Section 3.0. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. 6.1.9 The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. 6.1.10 An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year of the release to the APCO no later than 60 days after the end of the calendar year.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
6.0 Administrative Requirements (continued)	**6.2 Compliance Source Testing** 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. 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. 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. 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. 6.2.5 An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17: 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. 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.	6.2 Compliance Source Testing 6.2.1 An operator shall source test annually all VOC collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system is not subject to compliance source testing requirements. 6.2.2 If approved by the APCO, a VOC collection and control system is not subject to Section 6.2.1 if all uncondensed VOC emissions collected by the system are controlled by a device meeting one of the requirements in Sections 6.2.2.1 through 6.2.2.3. 6.2.2.1 An internal combustion engine subject to District Rule 4702 (Internal Combustion Engines – Phase 2); or 6.2.2.2 A combustion device subject to District Rule 4320 (Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr); District Rule 4307 (Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr); or District Rule 4308 (Boilers, Steam Generators, and Process Heaters – 0.075 MMBtu/hr to 2.0 MMBtu/hr); or 6.2.2.3 A unit subject to District Rule 4311 (Flares). 6.2.3 An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0: 6.2.3.1 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. 6.2.3.2 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 6.1.9.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version..**
6.0 Administrative Requirements (continued)	**6.3 Test Methods** 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. 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	**6.3 Test Methods** Test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.4 may be used provided that such equivalent test methods have been previously approved, in writing, by the EPA, ARB, and the APCO. 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	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	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. 6.3.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. 6.3.3 Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. 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". 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.	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. 6.3.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. 6.3.3 Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. 6.3.4 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.	
6.0 Administrative Requirements (continued)	**6.4 Inspection Log** 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	**6.4 Inspection Log** 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	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

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	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.	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.	
	6.5 Employee Training Program 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.	**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.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**
6.0 Administrative Requirements (continued)	**6.6 Operator Management Plan** 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	**6.6 Operator Management Plan** 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 4.6 (except for components buried below ground) may be	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	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. 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. 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.	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 Section 4.6 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. 6.7 By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. 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.	
7.0 Compliance Schedule	**7.0 Compliance Schedule** 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. 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. 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	**7.0 Compliance Schedule** 7.1 The operator of any new steam-enhanced crude oil production well, or any nonsteam- enhanced crude oil production well converted to a steam-enhanced crude oil production well 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. 7.2 Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.2, 4.3, 4.4, 4.6, or 4.7 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.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Overall Conclusion:

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	The provisions of this rule shall not apply to: 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. 4.2 Any architectural coating that is sold in a containers with a volume of one liter (1.057 quarts) or less. 4.3 Any aerosol coating product.	4.1 The provisions of this rule shall not apply to: 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. 4.1.2 Any aerosol coating product. 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.	**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.**		
	5.1 VOC Content Limits: Except as provided in Sections 5.2, 5.3, 5.8 and 8.0, no person shall; 5.1.1 manufacture, blend, or repackage for sale within the District; 5.1.2 supply, sell, or offer for sale within the district; 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.	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.	**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.**
	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: 5.2.1 Lacquer coatings (including lacquer sanding sealers) 5.2.2 Metallic pigmented coatings 5.2.3 Shellacs 5.2.4 Fire-retardant coatings 5.2.5 Pretreatment wash primers 5.2.6 Industrial maintenance coatings 5.2.7 Low-solids coatings	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. 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. 5.2.2 Effective on and after January 1, 2011, with the exception of the	**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
	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	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. 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. 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	
	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	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.	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Section 5.3.2 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.**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	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.		
	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.	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.	**No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.**
	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.	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.	**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.**
	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.	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.	**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.**
	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.	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.	**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.**
	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	---	**This section has been removed. The operation is required to meet the lacquer VOC limit regardless of**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	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.		**temperature and humidity. Therefore, non-SIP version of rule is as stringent as SIP version**
	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.	---	**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.**
	---	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.	**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.**
	Table of Standards (See Attachment X for Table)	Table of Standards 1 (Effective through 12/31/10) (See Attachment X for Table)	**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.**
		Table of Standards 2 (Effective on and after 1/1/11) (See Attachment X for Table)	**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.**
6.0 Administrative Requirements	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the	**The non-SIP approved rule contain sections listed in the SIP rule plus**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	6.1.1 through 6.1.9 on the coating container (or label) in which the coating is sold or distributed. 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. 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. 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 6.3.1. The equations in Sections 3.25 or 3.26, as appropriate, shall be used to calculate VOC content. 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. 6.1.4.1 "For industrial use only" 6.1.4.2 "For professional use only" 6.1.4.3 "Not for residential use" or "Not intended for residential use" 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." 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" 6.1.7 Specialty Primers, Sealers and Undercoaters: Effective January 1, 2003, the labels of all specialty primers, sealers and undercoaters shall prominently	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. 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. 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. 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: 6.1.3.1 Maximum VOC Content, as determined from all potential product formulations; or 6.1.3.2 VOC Content, as determined from actual formulation data; or 6.1.3.3 VOC Content, as determined using the test methods in Section 6.3.2. 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. 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". 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	**additional requirements not found in the SIP version. 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
	display one or more of the descriptions listed in Section 6.1.7.1 through 6.1.7.5. 6.1.7.1 For blocking stains. 6.1.7.2 For fire-damaged substrates. 6.1.7.3 For smoke-damaged substrates. 6.1.7.4 For water-damaged substrates. 6.1.7.5 For excessively chalky substrates. 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. 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".	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. 6.1.5.1 "For industrial use only" 6.1.5.2 "For professional use only" 6.1.5.3 "Not for residential use" or "Not intended for residential use" 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.) 6.1.7 Rust Preventative Coatings: The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only". 6.1.8 Specialty Primers, Sealers and Undercoaters: Effective until December 31, 2010, the labels of all specialty 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 specialty 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. 6.1.8.1 For fire-damaged substrates. 6.1.8.2 For smoke-damaged substrates. 6.1.8.3 For water-damaged substrates. 6.1.8.4 For excessively chalky substrates. 6.1.8.5 For blocking stains. 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.) 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." 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." 6.1.12 Nonflat– High Gloss Coatings: The labels of all Nonflat – high gloss coatings shall prominently display the words "High Gloss."	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		6.1.13 Wood Coatings: Effective January 1, 2011, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only." 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. 6.1.14.1 "For industrial use only" 6.1.14.2 "For professional use only" 6.1.14.3 "Not for residential use" or "Not intended for residential use"	
	6.2 Reporting Requirements 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. 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. 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. 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: 6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;	6.2 Reporting Requirements The reporting requirements specified in Sections 6.2.1 through 6.2.6 shall apply until December 31, 2010. 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. 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. 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. 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	**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.**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	6.2.4.2 the product category listed in the Table of Standards to which the coating belongs; 6.2.4.3 the total sales in California during the calendar year to the nearest gallon; 6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating. 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. 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.	annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year: 6.2.4.1 the product brand name and a copy of the product label with legible usage instructions; 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; 6.2.4.3 the total sales in California during the calendar year to the nearest gallon; 6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating. 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. 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. 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,	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		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: 6.2.7.1 the name and mailing address of the manufacturer; 6.2.7.2 the name, address and telephone number of a contact person; 6.2.7.3 the name of the coating product as it appears on the label and the applicable coating category; 6.2.7.4 whether the product is marketed for interior or exterior use or both; 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); 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; 6.2.7.7 the names and CAS numbers of the VOC constituents in the product; 6.2.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition; 6.2.7.9 whether the product is marketed as solvent-borne, waterborne, or 100% solids; 6.2.7.10 description of resin or binder in the product; 6.2.7.11 whether the coating is a single-component or multi-component product; 6.2.7.12 the density of the product in pounds per gallon; 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 6.2.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	6.3 Test Methods 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. 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. 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. 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). 6.3.5 Fire Resistance Rating: The fire	6.3 Test Methods 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. 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 tint base shall be determined without colorant that is added after the tint 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. 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	**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.**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	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). 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). 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). 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). 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. 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). 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 11/6/96 (see Section 3, Volatile Organic Compound, and Section 6.3.1). 6.3.12 Exempt Compounds—	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. 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 ~~1~~, after review and approved in writing by the staffs of the District, ARB and EPA, may also be used. 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. 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). 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). 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). 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. 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).	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	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 Parachlorobenzotriflouride," *BAAQMD Manual of Procedures*, Volume III, adopted 12/20/95 (see Section 3, Volatile Organic Compound, and Section 6.3.1). 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," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3, Volatile Organic Compound, and Section 6.3.1). 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 *Code of Federal Regulations* (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings"(see Section 6.3.1). 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," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 6.3.1). 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).	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.) 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.) 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," *BAAQMD Manual of Procedures*, Volume III, adopted 11/6/96 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 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 Parachlorobenzotriflouride," *BAAQMD Manual of Procedures*, Volume III, adopted 12/20/95 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 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," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 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 *Code of*	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		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). 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," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples*. 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). 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". 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". 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". 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". 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	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		for Evaluating Degree of Blistering of Paints". 6.3.23 Waterproofing Membrane: Waterproofing membrane shall be tested by ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course". 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". 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 C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units". 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". 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". 6.3.28 Stone Consolidants: Stone consolidants shall be tested using ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants".	
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
	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. Per Section 8.1, averaging is no longer applicable. Therefore, Section 8.2 through 8.14 are not listed.		

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.

Comparison of the Non-SIP amended version (amended August 18, 2011) of District Rule 4702 (Internal Combustion Engines) with the SIP approved version (amended January 18, 2007) of District Rule 4702 (Internal Combustion Engines – Phase 2)			
Section	**SIP Version of Rule 4702 (Amended January 18, 2007)**	**Non-SIP Version of Rule 4702 (Amended August 18, 2011)**	**Conclusion**
1.0 Purpose	1.0 The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.	1.0 The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SOx) from internal combustion engines.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
2.0 Applicability	2.0 This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.	2.0 This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
4.0 Exemptions	4.1 The requirements of this rule shall not apply to the following engines: 4.1.1 An engine used to propel implements of husbandry, as that term is defined in Section 36000 of the California Vehicle Code, as that section existed on January 1, 2003. 4.1.2 An engine used exclusively to power a wind machine. 4.1.3 A de-rated spark-ignited engine not used in agricultural operations, provided the de-rating occurred before June 1, 2004. 4.1.4 A de-rated spark-ignited engine used in agricultural operations or a de-rated compression-ignited engine, provided the de-rating occurred before June 1, 2005. 4.1.5 An engine used exclusively to power Mobile Agricultural Equipment. 4.2 Except for the requirements of Section 5.7 and Section 6.2.3, the requirements of this rule shall not apply to: 4.2.1 An emergency standby engine as defined in Section 3.0 of this rule, and provided that it is operated with a nonresettable elapsed operating time meter. In lieu of a nonresettable time meter, the owner of an emergency engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions. 4.2.2 An internal combustion engine that is	4.1 The requirements of this rule shall not apply to the following engines: 4.1.1 An engine used to propel implements of husbandry, as that term is defined in Section 36000 of the California Vehicle Code, as that section existed on January 1, 2003. 4.1.2 An engine used exclusively to power a wind machine. 4.1.3 A de-rated spark-ignited engine not used in agricultural operations, provided the de-rating occurred before June 1, 2004. 4.1.4 A de-rated spark-ignited engine used in agricultural operations or a de-rated compression-ignited engine, provided the de-rating occurred before June 1, 2005. 4.1.5 An engine used exclusively to power Mobile Agricultural Equipment. 4.1.6 An internal combustion engine registered as a portable emissions unit under the Statewide Portable Equipment Registration Program pursuant to California Code of Regulations Title 13, Division 3, Chapter 9, Article 5, Sections 2450-2465. 4.1.7 An internal combustion engine registered as a portable emissions unit under Rule 2280 (Portable Equipment Registration). 4.2 Except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter. 4.2.1 In lieu of operating a nonresettable	**The non-SIP version of this rule includes several operations that are not required to meet the requirements of this rule. These operations were added to clarify what operations are subject to this rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	operated no more than 200 hours per calendar year as determined by an operational nonresettable elapsed operating time meter and provided the engine is not used to perform any of the functions specified in Section 4.2.2.1 through Section 4.2.2.3 below. In lieu of a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions. 4.2.2.1 To generate electrical power that is either fed into the electrical utility power grid or used to reduce electrical power purchased by a stationary source, 4.2.2.2 To generate mechanical power that is used to reduce electrical power purchased by a stationary source, or 4.2.2.3 In a distributed generation application. 4.3 Except for the administrative requirements of Section 6.2.3, the requirements of this rule shall not apply to: 4.3.1 An internal combustion engine that meets the following conditions: 4.3.1.1 The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood, and 4.3.1.2 Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed operating time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine, and 4.3.1.3 The engine is operated with a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions. 4.3.2 An internal combustion engine registered as a portable emissions unit	elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter. 4.2.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. 4.3 Except for the administrative requirements of Section 6.2.3, the requirements of this rule shall not apply to the following: 4.3.1 An internal combustion engine that meets the following conditions: 4.3.1.1 The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood; and 4.3.1.2 Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine; and 4.3.1.3 The engine is operated with an operational nonresettable elapsed time meter. In lieu of installing a nonresettable elapsed time meter, the operator of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA. The operator of the engine shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. 4.3.2 Military Tactical Equipment and engines used to retract military aircraft arresting gear cables. 4.4 For existing facilities, a replacement unit installed for the sole purpose of complying with the requirements of this rule shall be considered to be an emission control technique and shall be exempt from the Best Available Control Technology (BACT) and offsets requirements of District Rule 2201 (New and Modified Stationary Source Review Rule) provided that all other requirements of Rule 2201 are met.	

	under Rule 2280 (Portable Equipment Registration) or the Statewide Portable Equipment Registration Program pursuant to Sections 2450-2465, Article 5, Title 13, California Code of Regulations. 4.3.3 Military Tactical Equipment and engines used to retract military aircraft arresting gear cables. 4.4. A replacement engine installed for the sole purpose of complying with the requirements of this rule shall be exempt from the Best Available Control Technology (BACT) and Offsets requirements of District Rule 2201 (New and Modified Stationary Source Review Rule) provided that all of the following conditions are met: 4.4.1 The replacement engine is of equal or lesser horsepower rating of the engine being replaced, 4.4.2 The replacement engine is subject to the same operational parameters (e.g. hours of operation, fuel use limitations, etc.) as the engine being replaced, 4.4.3 The replacement engine performs the same function as the engine being replaced, and 4.4.4 The emissions of the replacement engine are no greater than the emissions of the engine being replaced.	4.5 Except for the requirements of Section 5.1, the requirements of this rule shall not apply to stationary engines rated at least 25 Brake Horsepower, up to, and including 50 Brake Horsepower.	
5.0 Requirements	**Note:** Secton 5.0 requirements refer to Tables 1 through 4, which list the emission limits/standards for various categories of IC engines subject to this rule. These Tables are included at the end of this Stringency Comparison for each version of the rule.		
	N/A	5.1 Stationary Engines Rated at Least 25 Brake Horsepower, Up To, and Including 50 Brake Horsepower and Used in Non-Agricultural Operations (Non-AO) 5.1.1 On and after July 1, 2012, no person shall sell or offer for sale any non-AO spark-ignited engine or any non-AO compression-ignited engine unless the engine meets the applicable requirements and emission limits specified in 40 Code of Federal Regulation (CFR) 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) and 40 CFR 60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines) for the year in which the ownership of the engine changes. 5.1.2 By January 1, 2013, the operator shall submit a one-time report that includes the number of engines at the stationary source, and the following information for each engine: 5.1.2.1 Location of each engine, 5.1.2.2 Engine manufacturer,	**The SIP version does not apply to engines rated between 25 and 50 bhp. Therefore, the Non-SIP Version of the rule is more stringent.**

		5.1.2.3 Model designation and engine serial number, 5.1.2.4 Rated brake horsepower, 5.1.2.5 Type of fuel and type of ignition, 5.1.2.6 Combustion type: rich-burn, lean-burn, or compression ignition, 5.1.2.7 Purpose, and intended use, of the engine, 5.1.2.8 Typical daily operating schedule, and 5.1.2.9 Fuel consumption (cubic feet for gas or gallons for liquid fuel) for the previous one-year period.	
	5.1 Engine Emission Limits/Standards 5.1.1 Spark-Ignited Internal Combustion Engine Emission Limits/Standards - The owner of a spark-ignited internal combustion engine shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 below for the appropriate engine type according to the compliance schedules listed in Section 7.0 or according to the compliance dates specified in Table 1 below. A spark-ignited engine shall comply with the applicable emission limits pursuant to Section 5.1 or Section 8.0.	5.2 Stationary Engines Rated at Greater than 50 Brake Horsepower (>50 bhp) 5.2.1 Spark Ignited Engines Used in non-AO - Table 1 Emission Limits/Standards The operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in non-AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emission limits pursuant to Section 8.0. 5.2.2 Spark-Ignited Engines Used in non-AO – Table 2 Emission Limits/Standards On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine > 50 bhp that is used in non-AO shall comply with all the applicable requirements of the rule and one of the following, on an engine-by-engine basis: 5.2.2.1 On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine that is used exclusively in non-AO shall comply with Sections 5.2.2.1.1 through 5.2.2.1.3 on an engine-by-engine basis: 5.2.2.1.1 NOx, CO, and VOC emission limits pursuant to Table 2; 5.2.2.1.2 SOx control requirements of Section 5.7, pursuant to the deadlines specified in Section 7.5; and 5.2.2.1.3 Monitoring requirements of Section 5.10, pursuant to the deadlines specified in Section 7.5. 5.2.2.2 In lieu of complying with the NOx emission limit requirement of Section 5.2.2.1.1, an operator may pay an annual fee to the District, as specified in Section 5.6, pursuant to Section 7.6.	**The requirements of Table 1 of both versions of the rule are identical. Table 2 from the non-SIP version found at the end of this document has emissions requirements that are more stringent than the requirements of Table 1 in both versions of the Rule. The standards of the non-SIP version are 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.**

		5.2.2.2.1 Engines in the fee payment program shall have actual emissions not greater than the applicable limits in Table 1 during the entire time the engine is part of the fee payment program. 5.2.2.2.2 Compliance with Section 5.7 and 5.10, pursuant to the deadlines specified in Section 7.5, is also required as part of the fee payment option. 5.2.2.3 In lieu of complying with the NOx, CO, and VOC limits of Table 2 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0. An operator electing this option shall not be eligible to participate in the fee payment option outlined in Section 5.2.2.2 and Section 5.6. 5.2.3 Spark-Ignited Engines Used Exclusively in Agricultural Operations (AO) 5.2.3.1 The operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 3 for the appropriate engine type on an engine-by-engine basis. 5.2.3.2 In lieu of complying with the NOx, CO, and VOC limits of Table 3 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0. 5.2.3.3 An operator of an AO spark-ignited engine that is subject to the applicable requirements of Table 3 shall not replace such engine with an engine that emits more emissions of NOx, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced.	

	5.1.2 Compression-Ignited Internal Combustion Engine Emission Limits/Standards and Compliance Schedules – The owner of a compression-ignited internal combustion engine shall repower, replace or control the engine to comply with the applicable limits/standards and compliance dates in Table 2 below. The annual hours of operation shall be determined on a calendar year basis. A compression-ignited engine shall comply with the applicable emission limits/standards pursuant to Section 5.1.2 or Section 8.0. 5.1.3 On and after June 1, 2006, the owner of an AO rich-burn spark-ignited engine, AO lean-burn spark-ignited engine, or AO compression-ignited engine that is subject to the requirements of Section 5.1 shall not replace such engine with a rich-burn spark-ignited, lean-burn spark-ignited, or compression-ignited engine, respectively, that emits more emissions of NOx, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced. 5.1.4 The owner of a non-certified compression-ignited engine, in place on June 1, 2006, shall comply with the Emission Limit/Standard and Compliance Date in Table 2 based on the non-certified compression-ignited engine that was in place on June 1, 2006, unless the owner meets one of the following conditions: 5.1.4.1Replaces the non-certified compression-ignited engine with a non-modified Tier 3 or a non-modified Tier 4 engine after June 1, 2006, 5.1.4.2 Controls the non-certified compression-ignited engine after June 1, 2006, to emit emissions less than, or equal to, 80 ppm NOx, 2,000 ppm CO, and 750 ppm VOC, (corrected to 15% oxygen on a dry basis), or 5.1.4.3 Replaces the non-certified compression-ignited engine after June 1, 2006, with an engine or other source with emissions less than, or equal to, 80 ppm NOx, 2,000 ppm CO, and 750 ppm VOC (corrected to 15% oxygen on a dry basis).	5.2.4 Certified Compression-Ignited Engines (AO and non-AO) The operator of a certified compression-ignited engine rated >50 bhp shall comply with the following requirements: 5.2.4.1 Repower, replace, or control the engine's emissions to comply with the applicable limits/standards in Table 4 on an engine-by-engine basis by the compliance dates as specified in Table 4. 5.2.4.2 The annual hours of operation shall be determined on a calendar year basis. 5.2.4.3 In lieu of complying with the NOx, CO, and VOC limits of Table 4 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0. 5.2.4.4 An operator of an AO compression-ignited engine that is subject to the applicable requirements of Table 4 shall not replace such engine with an engine that emits more emissions of NOx, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced. 5.2.5 Non-Certified Compression-Ignited Engines (AO and Non-AO) The operator of a non-certified compression-ignited engine, in place on or before June 1, 2006, shall comply with the Emission Limit/Standard and Compliance Date in Table 4 based on the non-certified compression ignited engine that was in place on June 1, 2006, unless the operator meets one of the following conditions: 5.2.5.1 Replace the non-certified compression-ignited engine with a nonmodified Tier 3 or a non-modified Tier 4 engine after June 1, 2006; 5.2.5.2 Control the non-certified compression-ignited engine after June 1, 2006, to emit emissions less than, or equal to, 80 ppmv NOx, 2,000 ppmv CO, and 750 ppmv VOC (corrected to 15% oxygen on a dry basis); or 5.2.5.3 Replace the non-certified compression-ignited engine after June 1, 2006, with an engine or other source with emissions less than, or equal to, 80 ppmv NOx, 2,000 ppmv CO, and 750 ppmv VOC (corrected to 15% oxygen on a dry basis).	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	5.2 All continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule. 5.3 Percent emission reductions, if used to comply with the NOx emission limits of Section 5.1, shall be calculated as follows: 5.3.1 For engines with external control devices that are not operated in combination with a second emission control device or technique, percent reduction shall be calculated using emission samples taken at the inlet and outlet of the control device. 5.3.2 For engines without external control devices and for engines with an external control device in combination with a second emission control device or technique, percent reduction shall be based on source test results for the uncontrolled engine and the engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. When representative source sampling prior to the application of an emissions control technology or technique is not available, the APCO may approve the use of a manufacturer's uncontrolled emissions information or source sampling from a similar, uncontrolled engine. 5.4 The owner of an internal combustion engine that uses percent emission reduction to comply with the NOx emission limits of Section 5.1 shall provide an accessible inlet and outlet on the external control device or the engine as appropriate for taking emission samples and as approved by the APCO.	5.3 All continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutiveminute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule. 5.4 Percent emission reductions, if used to comply with the NOx emission limits of Section 5.2, shall be calculated as follows: 5.4.1 For engines with external control devices that are not operated in combination with a second emission control device or technique, percent reduction shall be calculated using emission samples taken at the inlet and outlet of the control device. 5.4.2 For engines without external control devices and for engines with an external control device in combination with a second emission control device or technique, percent reduction shall be based on source test results for the uncontrolled engine and the engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. When representative source sampling prior to the application of an emissions control technology or technique is not available, the APCO may approve the use of a manufacturer's uncontrolled emissions information or source sampling from a similar, uncontrolled engine. 5.5 The operator of an internal combustion engine that uses percent emission reduction to comply with the NOx emission limits of Section 5.2 shall provide an accessible inlet and outlet on the external control device or the engine as appropriate for taking emission samples and as approved by the APCO.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	N/A	5.6 Payment of an Annual Fee In Lieu of Complying with a NOx Emission Limit The operator of a non-AO spark-ignited engine who elects to comply under Section 5.2.2.2 shall comply with the requirements of Sections 5.6 by the schedule specified in Section 7.6 and all other applicable provisions of this rule. 5.6.1 An operator shall pay a total annual fee to the District based on the total NO_x emissions from those engines that will be subject to Section 5.2.2.2. The annual fee shall be calculated in the following manner: 5.6.1.1 The operator shall calculate the total emissions for all engines operating at a stationary source that will comply with Section 5.2.2.2. The total NOx emissions	**The annual fee option applies to units subject to Table 2.**

		shall be calculated in accordance with Section 5.6.1.3. 5.6.1.2 The total annual fee shall be calculated in accordance with Section 5.6.1.4. These calculations include only the units that have been identified to comply with Section 5.2.2.2. 5.6.1.3 Total Emissions (TE) Calculation E (engine) = A x B x C x D x 2.147 x 10-16 Where: E (engine) = Annual NOx emissions for each unit, in tons/year. A = NOx emission limit for the Permit-to-Operate, in ppmvd corrected to 15% oxygen. B = Annual fuel use (ft3/year) C = Fuel higher heating value (Btu/ft3) – for natural gas use 1,000 Btu/ft3 D = Fuel F-Factor at 60oF (Dscf/MMBtu) – for natural gas use 8,579 Dscf/MMBtu TE = ΣE(engine) Where: ΣE(engine) = Sum of all NOx emissions from all units in the annual fee program, in tons per year. 5.6.1.4 Total Annual Fee Calculation Total Annual Fee = (TE x FR) + Administrative Fee Where: TE = Total Emissions, in tons per year, as calculated in Section 5.6.1.3. FR (Fee Rate) = the cost of NOx reductions, in dollars per ton, as established by District Rule 9510. Under no circumstances shall the cost per ton of NO_x reductions exceed the cost effectiveness threshold for the Carl Moyer Cost Effectiveness, as established by the applicable state law. Administrative Fee = 4% x (TE x FR)	

	5.5 California Reformulated Gasoline shall be used as the fuel for all gasoline-fired, spark-ignited internal combustion engines.	5.7 Sulfur Oxides (SOx) Emission Control Requirements On and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements: 5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or 5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or 5.7.3 Use California Reformulated Gasoline for gasoline-fired spark-ignited engines; or 5.7.4 Use California Reformulated Diesel for compression-ignited engines; or 5.7.5 Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or 5.7.6 Install and properly operate an emission control system that reduces SO2 emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6.	**The non-SIP version of this rule contains SOx emissions control requirements not found in the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	5.6 Monitoring Requirements A The owner of a non-AO spark-ignited engine subject to the requirements of Section 5.1 or any engine subject to the requirements of Section 8.0 shall comply with the following requirements: 5.6.1 For each engine with a rated brake horsepower of 1,000 hp or greater and which is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition to operate more than 2,000 hours per calendar year, or with an external emission control device, either install, operate, and maintain continuous monitoring equipment for NOx, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following: 5.6.1.1 Periodic NOx and CO emission concentrations, 5.6.1.2 Engine exhaust oxygen concentration, 5.6.1.3 Air-to-fuel ratio, 5.6.1.4 Flow rate of reducing agents added to engine exhaust, 5.6.1.5 Catalyst inlet and exhaust temperature,	5.8 Monitoring Requirements: Non-AO Spark-Ignited Engines and Engines in an AECP (Section 8.0) The operator of a non-AO spark-ignited engine subject to the requirements of Section 5.2 or any engine subject to the requirements of Section 8.0 shall comply with the following requirements: 5.8.1 For each engine with a rated brake horsepower of 1,000 bhp or greater and which is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition to operate more than 2,000 hours per calendar year, or with an external emission control device, either install, operate, and maintain continuous monitoring equipment for NOx, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following: 5.8.1.1 Periodic NOx and CO emission concentrations, 5.8.1.2 Engine exhaust oxygen concentration, 5.8.1.3 Air-to-fuel ratio, 5.8.1.4 Flow rate of reducing agents added to engine exhaust,	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	5.6.1.6 Catalyst inlet and exhaust oxygen concentration, 5.6.1.7 Other operational characteristics. 5.6.2 For each engine not subject to Section 5.6.1, monitor operational characteristics recommended by the engine manufacturer or emission control system supplier, and approved by the APCO. 5.6.3 For each engine with an alternative monitoring system, submit to, and receive approval from the APCO, adequate verification of the alternative monitoring system's acceptability. This would include data demonstrating the system's accuracy under typical operating conditions for the specific application and any other information or data deemed necessary in assessing the acceptability of the alternative monitoring system. 5.6.4 For each engine with an APCO approved CEMS, operate the CEMS in compliance with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Appendix B (Performance Specifications), 40 CFR Appendix F (Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring). 5.6.5 For each engine, have the data gathering and retrieval capabilities of an installed monitoring system described in Section 5.6 approved by the APCO. 5.6.6 For each engine, install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions. 5.6.7 For each engine, implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5. 5.6.8 For each engine, collect data through the I&M plan in a form approved by the APCO. 5.6.9 For each engine use a portable NOx analyzer to take NOx emission readings to verify compliance with the emission requirements of Section 5.1 or Section 8.0 during each calendar quarter in which a source test is not performed and the engine is operated. All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt	5.8.1.5 Catalyst inlet and exhaust temperature, 5.8.1.6 Catalyst inlet and exhaust oxygen concentration, or 5.8.1.7 Other operational characteristics. 5.8.2 For each engine not subject to Section 5.8.1, monitor operational characteristics recommended by the engine manufacturer or emission control system supplier, and approved by the APCO. 5.8.3 For each engine with an alternative monitoring system, submit to, and receive approval from the APCO, adequate verification of the alternative monitoring system's acceptability. This would include data demonstrating the system's accuracy under typical operating conditions for the specific application and any other information or data deemed necessary in assessing the acceptability of the alternative monitoring system. 5.8.4 For each engine with an APCO approved CEMS, operate the CEMS in compliance with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Appendix B (Performance Specifications), 40 CFR Appendix F (Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring). 5.8.5 For each engine, have the data gathering and retrieval capabilities of an installed monitoring system described in Section 5.8 approved by the APCO. 5.8.6 For each engine, install and operate a nonresettable elapsed time meter. 5.8.6.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to- Operate or Permit-Exempt Equipment Registration condition. 5.8.6.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. 5.8.7 For each engine, implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5. 5.8.8 For each engine, collect data through the I&M plan in a form approved by the APCO. 5.8.9 For each engine, use a portable NOx analyzer to take NOx emission readings to verify compliance with the emission requirements of Section 5.2 or Section 8.0 during each calendar quarter in which a	

	Equipment Registration. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO. NOx emission readings taken pursuant to this section 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. 5.6.10 The APCO shall not approve an alternative 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 operator shall source test over the proposed range of surrogate operating parameters to demonstrate compliance with the applicable emission standards. 5.6.11 For each engine subject to Section 8.0, install and operate a nonresettable fuel meter. In lieu of installing a nonresettable fuel meter, the owner may use an alternative device, method, or technique in determining daily fuel consumption provided that the alternative is approved by the APCO. The owner shall properly maintain, operate, and calibrate the required fuel meter in accordance with the manufacturer's instructions.	source test is not performed and the engine is operated. 5.8.9.1 If an engine is operated less than 120 calendar days per calendar year, take one NOx emission reading during the calendar year in which a source test is not performed and the engine is operated. 5.8.9.2 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. 5.8.9.3 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. 5.8.9.4 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO. 5.8.9.5 NOx emission readings taken pursuant to this section 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 consecutiveminute period. 5.8.10 The APCO shall not approve an alternative 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 operator shall source test over the proposed range of surrogate operating parameters to demonstrate compliance with the applicable emission standards. 5.8.11 For each engine subject to Section 8.0, install and operate a nonresettable fuel meter. 5.8.11.1 In lieu of installing a nonresettable fuel meter, the operator may use an alternative device, method, or technique in determining daily fuel consumption provided that the alternative is approved by the APCO and EPA. 5.8.11.2 The operator shall properly maintain, operate, and calibrate the required fuel meter in accordance with the manufacturer's instructions.	
	5.7 Monitoring Requirements B 5.7.1 The owner of any of the following engines shall comply with the requirements specified	5.9 Monitoring Requirements: All Other Engines 5.9.1 The operator of any of the following engines shall comply with the requirements	**There is no change in the requirements of this section. Therefore, the non-SIP version of the**

	in Section 5.7.2 through Section 5.7.5 below: 5.7.1.1 An AO spark-ignited engine subject to the requirements of Section 5.1, 5.7.1.2 A compression-ignited engine subject to the requirements of Section 5.1, or 5.7.1.3 An engine subject to Section 4.2. 5.7.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier. 5.7.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. 5.7.4 Install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device. method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions. 5.7.5 The owner of an AO spark-ignited engine that has been retro-fitted with a NOx exhaust control that has not been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements, or a compression-ignited engine that has been retro-fitted with a NOx exhaust control shall comply with the following: 5.7.5.1 Use a portable NOx analyzer to take NOx emission readings to demonstrate compliance with the emission requirements of Section 5.1. 5.7.5.2 The owner of a compression-ignited engine that is subject to the limits/standards of Section 5.1.2 Table 2 Category 1.d shall use a portable NOx analyzer to take NOx emission readings at least once every six months that the engine is operated. 5.7.5.3 The owner of any other engine that has been retro-fitted with a NOx exhaust control shall use a portable NOx analyzer to take NOx emission readings at least once every 24 months that the engine is operated. 5.7.5.4 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.	specified in Section 5.9.2 through Section 5.9.5 below: 5.9.1.1 An AO spark-ignited engine subject to the requirements of Section 5.2; 5.9.1.2 A compression-ignited engine subject to the requirements of Section 5.2; or 5.9.1.3 An engine subject to Section 4.2. 5.9.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier. 5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. 5.9.4 Install and operate a nonresettable elapsed time meter. 5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to- Operate or Permit-Exempt Equipment Registration condition. 5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions. 5.9.5 The operator of an AO spark-ignited engine that has been retro-fitted with a NOx exhaust control that has not been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements, or a compression ignited engine that has been retro-fitted with a NOx exhaust control shall comply with the following: 5.9.5.1 Use a portable NOx analyzer to take NOx emission readings to demonstrate compliance with the emission requirements of Section 5.2. 5.9.5.2 The operator of a compression-ignited engine that is subject to the limits/standards of Section 5.2 Table 4 Category 1.d shall use a portable NOx analyzer to take NOx emission readings at least once every six (6) months that the engine is operated. 5.9.5.3 The operator of any other engine that has been retro-fitted with a NOx exhaust control shall use a portable NOx analyzer to take NOx emission readings at least once every 24 months that the engine is operated. 5.9.5.4 All emission readings shall be taken with the engine operating either at	**rule is as stringent as the SIP version of the rule.**

	5.7.5.5 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. 5.7.5.6 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO. 5.7.5.7 NOx emission readings taken pursuant to this section 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.	conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. 5.9.5.5 The portable NOx analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. 5.9.5.6 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO. 5.9.5.7 NOx emission readings taken pursuant to this section 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.	
		5.10 SOx Emissions Monitoring Requirements On and after the compliance schedule specified in Section 7.5, an operator of a non-AO engine shall comply with the following requirements: 5.10.1 An operator of an engine complying with Sections 5.7.2 or 5.7.5 shall perform an annual sulfur fuel analysis in accordance with the test methods in Section 6.4. The operator shall keep the records of the fuel analysis and shall provide it to the District upon request, 5.10.2 An operator of an engine complying with Section 5.7.6 by installing and operating a control device with at least 95% by weight SOx reduction efficiency shall submit for approval by the APCO the proposed the key system operating parameters and frequency of the monitoring and recording not later than July 1, 2013, and 5.10.3 An operator of an engine complying with Section 5.7.6 shall perform an annual source test unless a more frequent sampling and reporting period is included in the Permit-to-Operate. Source tests shall be performed in accordance with the test methods in Section 6.4.	**The non-SIP approved version contains SO_x emissions monitoring requirements not required in the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	5.8 Permit-Exempt Equipment Registration Requirements The owner of an engine used exclusively in agricultural operations shall register such engine pursuant to Rule 2250 (Permit-Exempt Equipment Registration), except for an engine that meets any one of the following conditions: 5.8.1 The engine is required to have a Permit-to-Operate pursuant to California Health and Safety Code Section 42301.16, or 5.8.2 The engine is not required to comply with Section 5.1 of this rule.	5.11 Permit-Exempt Equipment Registration Requirements The operator of an engine used exclusively in agricultural operations shall register such engine pursuant to Rule 2250 (Permit-Exempt Equipment Registration), except for an engine that meets any one of the following conditions: 5.11.1 The engine is required to have a Permit-to-Operate pursuant to California Health and Safety Code Section 42301.16; or 5.11.2 The engine is not required to comply with Section 5.2 of this rule.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
6.0 Administrative Requirements	6.1 Emission Control Plan The owner of an engine subject to the requirements of Section 5.1 or Section 8.0, except for an engine specified in Section 6.1.1, of this rule shall submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0. 6.1.1 The requirement to submit an emission control plan shall not apply to an engine specified below: 6.1.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0, 6.1.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0, 6.1.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0, 6.1.1.4 An engine subject to Section 4.2, or 6.1.1.5 An engine subject to Section 4.3. 6.1.1.6 An engine with an operating exhaust control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements. 6.1.2 Such emission control plan shall contain the following information, as applicable for each engine: 6.1.2.1 Permit-to-Operate number, Authority-to-Construct number, or Permit-Exempt Equipment Registration number 6.1.2.2 Engine manufacturer 6.1.2.3 Model designation and engine serial	6.1 Emission Control Plan The operator of an engine subject to the requirements of Section 5.2 of this rule shall submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.2 and the compliance schedules of Section 7.0. If there is no change to the previously-approved emission control plan, the operator shall submit a letter to the District indicating that the previously approved plan is still valid. 6.1.1 The requirement to submit an emission control plan shall apply to the following engines: 6.1.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0; 6.1.1.2 Engines subject to Section 8.0; 6.1.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0; 6.1.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0. 6.1.2 Such emission control plan shall contain the following information, as applicable for each engine: 6.1.2.1 Permit-to-Operate number, Authority-to-Construct number, or Permit-Exempt Equipment Registration number, 6.1.2.2 Engine manufacturer, 6.1.2.3 Model designation and engine serial number, 6.1.2.4 Rated brake horsepower, 6.1.2.5 Type of fuel and type of ignition, 6.1.2.6 Combustion type: rich-burn or lean-	**The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet these section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	number 6.1.2.4 Rated brake horsepower 6.1.2.5 Type of fuel and type of ignition 6.1.2.6 Combustion type: rich-burn or lean-burn 6.1.2.7 Total hours of operation in the previous one-year period, including typical daily operating schedule 6.1.2.8 Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period 6.1.2.9 Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing 6.1.2.10 Type of control to be applied, including in-stack monitoring specifications 6.1.2.11 Applicable emission limits 6.1.2.12 Documentation showing existing emissions of NOx, VOC, and CO, and 6.1.2.13 Date that the engine will be in full compliance with Rule 4702. 6.1.3 The emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule. 6.1.4 For an engine being permanently removed from service, the emission control plan shall include a letter of intent pursuant to Section 7.2.	burn, 6.1.2.7 Total hours of operation in the previous one-year period, including typical daily operating schedule, 6.1.2.8 Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period, 6.1.2.9 Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing, 6.1.2.10 Type of control to be applied, including in-stack monitoring specifications, 6.1.2.11 Applicable emission limits, 6.1.2.12 Documentation showing existing emissions of NOx, VOC, and CO, and 6.1.2.13 Date that the engine will be in full compliance with this rule. 6.1.3 The emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule. 6.1.4 For an engine being permanently removed from service, the emission control plan shall include a letter of intent pursuant to Section 7.2.	
	6.2 Recordkeeping 6.2.1 Except for engines subject to Section 4.0, the owner of an engine subject to the requirements of Section 5.1 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information: 6.2.1.1 Total hours of operation, 6.2.1.2 Type of fuel used, 6.2.1.3 Maintenance or modifications performed, 6.2.1.4 Monitoring data, 6.2.1.5 Compliance source test results, and	6.2 Recordkeeping 6.2.1 The operator of an engine subject to the requirements of Section 5.2 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information: 6.2.1.1 Total hours of operation, 6.2.1.2 Type of fuel used, 6.2.1.3 Maintenance or modifications performed, 6.2.1.4 Monitoring data, 6.2.1.5 Compliance source test results, and	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	6.2.1.6 Any other information necessary to demonstrate compliance with this rule. 6.2.1.7 For an engine subject to Section 8.0, the quantity (cubic feet of gas or gallons of liquid) of fuel used on a daily basis. 6.2.2 The data collected pursuant to the requirements of Section 5.6 and Section 5.7 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request. 6.2.3 An owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and provided to the APCO upon request. The records shall include, but are not limited to, the following: 6.2.3.1 Total hours of operation, 6.2.3.2 The type of fuel used, 6.2.3.3 The purpose for operating the engine, 6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and 6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.	6.2.1.6 Any other information necessary to demonstrate compliance with this rule. 6.2.1.7 For an engine subject to Section 8.0, the quantity (cubic feet of gas or gallons of liquid) of fuel used on a daily basis. 6.2.2 The data collected pursuant to the requirements of Section 5.8 and Section 5.9 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request. 6.2.3 An operator claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and provided to the APCO upon request. The records shall include, but are not limited to, the following: 6.2.3.1 Total hours of operation, 6.2.3.2 The type of fuel used, 6.2.3.3 The purpose for operating the engine, 6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and 6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.	
	6.3 Compliance Testing The owner of an engine subject to the requirements of Section 5.1 or the requirements of Section 8.0, shall comply with the following requirements, except for an engine specified in Section 6.3.1: 6.3.1 The requirements of Section 6.3.2 through Section 6.3.4 shall not apply to any of the following engines: 6.3.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0. 6.3.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0. 6.3.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0. 6.3.1.4 An engine subject to Section 4.2. 6.3.1.5 An engine subject to Section 4.3. 6.3.1.6 An engine with an operating exhaust	6.3 Compliance Testing The operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall comply with the following requirements: 6.3.1 The requirements of Section 6.3.2 through Section 6.3.4 shall apply to the following engines: 6.3.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0; 6.3.1.2 Engines subject to Section 8.0; 6.3.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0; 6.3.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0. 6.3.2 Demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below: 6.3.2.1 By the applicable date specified in	**The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet this section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements. 6.3.2 Demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below: 6.3.2.1 By the applicable date specified in Section 5.1.1, Section 5.1.2, Section 7.3, Section 7.4, Section 7.5, or Section 7.6 and at least once every 24 months thereafter, except for an engine subject to Section 6.3.2.2. 6.3.2.2 By the applicable date specified in Section 5.1.1, Section 5.1.2,Section 7.3, Section 7.4, Section 7.5, or Section 7.6 and at least once every 60 months thereafter, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0. 6.3.2.3 A portable NOx analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.1 for AO spark-ignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date. 6.3.2.3.1 A minimum of 15 minutes of runtime must be measured with data recorded at a minimum of 15, evenly spaced time intervals. Compliance is to be determined with the arithmetic average of the oxygen-corrected data. 6.3.2.3.2 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer calibration records shall be made available at the District's request. 6.3.2.3.3 The analyzer shall be checked with EPA protocol span gas at the beginning and end of each test day. The results of these checks shall be recorded and copies submitted to the District with each engine test. If the analyzer exhibits more than a 10% deviation from the span check, the instrument must be re-calibrated. Any analysis performed prior to an end-of-day span check failure shall be void. 6.3.2.3.4. The test results of each engine, including span check results, shall be submitted to the District within 30 days of the test date. Test results shall clearly identify the engine tested including owner, location, permit or	Section 5.2, and at least once every 24 months thereafter, except for an engine subject to Section 6.3.2.2 By the applicable date specified in Section 5.2 and at least once every 60 months thereafter, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device. 6.3.2.3 A portable NOx analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.2 for AO spark ignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date. 6.3.2.3.1 A minimum of 15 minutes of runtime must be measured with data recorded at a minimum of 15, evenly spaced time intervals. Compliance is to be determined with the arithmetic average of the oxygen corrected data; 6.3.2.3.2 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer calibration records shall be made available at the District's request; 6.3.2.3.3 The analyzer shall be checked with EPA protocol span gas at the beginning and end of each test day. The results of these checks shall be recorded and copies submitted to the District with each engine test. If the analyzer exhibits more than a 10% deviation from the span check, the instrument must be recalibrated. Any analysis performed prior to an end-of-day span check failure shall be void; 6.3.2.3.4 The test results of each engine, including span check results, shall be submitted to the District within 30 days of the test date. Test results shall clearly identify the engine tested including operator, location, permit or registration number, manufacturer, model, and serial number; and 6.3.2.3.5 The analyzer utilized for each check shall be clearly identified in the material submitted with the test results. Identification shall include manufacturer and serial number of the analyzer used, and the last calibration date. 6.3.3 Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the	

	registration number, manufacturer, model, and serial number. 6.3.2.3.5. The analyzer utilized for each check shall be clearly identified in the material submitted with the test results. Identification shall include manufacturer and serial number of the analyzer used, and the last calibration date. 6.3.3 Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, 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. VOC shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit in Table 1, the percent reduction of NOx emissions shall also be reported. 6.3.4 In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan. 6.3.5 Engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions.	purpose of determining compliance with an applicable standard or numerical limitation, 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. VOC shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NO_X emissions shall also be reported. 6.3.4 In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan. 6.3.5 Engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions.	
	6.3.6 Representative Testing For spark-ignited engines, in lieu of compliance with the applicable requirements of Section 6.3.2, compliance with the applicable emission limits in Section 5.1 shall be demonstrated by submittal of annual emission test results, within 30 days of the test date, to the District, from a unit or units that represents a specified group of units, provided all of the following are requirements are satisfied: 6.3.6.1 The units are located at the same stationary source; 6.3.6.2 The units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specifications;	6.3.6 Representative Testing For spark-ignited engines, in lieu of compliance with the applicable requirements of Section 6.3.2, compliance with the applicable emission limits in Section 5.2 shall be demonstrated by submittal of annual emission test results, within 30 days of the test date, to the District, from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied: 6.3.6.1 The units are located at the same stationary source; 6.3.6.2 The units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	6.3.6.3 The units are operated and maintained in a similar manner; and 6.3.6.4 At least 20% of the total number of units are tested during each annual test cycle. 6.3.6.5 The District, based on documentation submitted by the stationary source: 6.3.6.5.1 Determines that the margin of compliance for the identical units tested is significant and can be maintained on an on-going basis; or 6.3.6.5.2 Determines based on a review of sufficient emissions data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit will be in compliance. These factors may include, but are not limited to, the following: 6.3.6.5.2.1 Historical records at the tested unit 6.3.6.5.2.2 Fuel characteristics yielding low variability and therefore assurance that emissions will be constant and below allowable levels; 6.3.6.5.2.3 Statistical analysis of a robust emissions data set demonstrate sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable. 6.3.6.6 Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in Sections 6.3.6.1 through 6.3.6.5 have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of Section 6.3.6.6 has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.2 or 6.3.6.	capacity and operating specifications; 6.3.6.3 The units are operated and maintained in a similar manner; and 6.3.6.4 At least 20% of the total number of units are tested during each annual test cycle. 6.3.6.5 The District, based on documentation submitted by the stationary source: 6.3.6.5.1 Determines that the margin of compliance for the identical units tested is significant and can be maintained on an on-going basis; or 6.3.6.5.2 Determines based on a review of sufficient emissions data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit will be in compliance. These factors may include, but are not limited to, the following: 6.3.6.5.2.1 Historical records at the tested unit showing consistent invariant load; 6.3.6.5.2.2 Fuel characteristics yielding low variability and therefore assurance that emissions will be constant and below allowable levels; 6.3.6.5.2.3 Statistical analysis of a robust emissions data set demonstrating sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable. 6.3.6.6 Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in Sections 6.3.6.1 through 6.3.6.5 have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of this section has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.2 or 6.3.6.	
	6.4 Test Methods Compliance with the requirements of Section 5.0 shall be determined, as required, in accordance with the following test procedures or any other method approved by EPA and the APCO: 6.4.1 Oxides of nitrogen - EPA Method 7E, or ARB Method 100. 6.4.2 Carbon monoxide - EPA Method 10, or ARB Method 100.	6.4 Test Methods Compliance with the requirements of Section 5.2 shall be determined, as required, in accordance with the following test procedures or any other method approved by EPA and the APCO: 6.4.1 Oxides of nitrogen - EPA Method 7E, or ARB Method 100. 6.4.2 Carbon monoxide - EPA Method 10, or ARB Method 100.	**The Non-SIP approved version of this rule added SO_X test methods to the SIP approved version of this rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	6.4.3 Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100. 6.4.4 Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. 6.4.5 Operating horsepower determination - any method approved by EPA and the APCO.	6.4.3 Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100. 6.4.4 Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test. 6.4.5 Operating horsepower determination - any method approved by EPA and the APCO. 6.4.6 SOx Test Methods 6.4.6.1 Oxides of sulfur – EPA Method 6C, EPA Method 8, or ARB Method 100. 6.4.6.2 Determination of total sulfur as hydrogen sulfide (H2S) content – EPA Method 11 or EPA Method 15, as appropriate. 6.4.6.3 Sulfur content of liquid fuel – American Society for Testing and Materials (ASTM) D 6920-03 or ASTM D 5453-99. 6.4.6.4 The SOx emission control system efficiency shall be determined using the following: % Control Efficiency = [(CSO2, inlet – CSO2, outlet) / CSO2, inlet] X 100 Where: CSO2, inlet = concentration of SOx (expressed as SO2) at the inlet side of the SOx emission control system, in lb/Dscf CSO2, outlet = concentration of SOx (expressed as SO2) at the outlet side of the SOx emission control system, in lb/Dscf 6.4.7 The Higher Heating Value (hhv) of the fuel shall be determined by one of the following test methods: 6.4.7.1 ASTM D 240-02 or ASTM D 3282-88 for liquid hydrocarbon fuels. 6.4.7.2 ASTM D 1826-94 or ASTM 1945-96 in conjunction with ASTM D 3588-89 for gaseous fuel.	

	6.5 Inspection and Monitoring (I&M) Plan The owner of an engine that is subject to the requirements of Section 5.1 or the requirements of Section 8.0, except for an engine specified in Section 6.5.1, shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.6. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below: 6.5.1 The requirements of Section 6.5.2 through Section 6.5.9 shall not apply to any of the following engines: 6.5.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0. 6.5.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0. 6.5.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0. 6.5.1.4 An engine subject to Section 4.2. 6.5.1.5 An engine subject to Section 4.3. 6.5.1.6 An engine with an operating exhaust control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements. 6.5.2 Procedures requiring the owner or operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits. 6.5.3 Procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan. 6.5.4 Procedures for the corrective actions on the noncompliant parameter(s) that the owner or operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations. 6.5.5 Procedures for the owner or operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust	6.5 Inspection and Monitoring (I&M) Plan The operator of an engine that is subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below. If there is no change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid. 6.5.1 The requirements of Section 6.5.2 through Section 6.5.9 shall apply to the following engines: 6.5.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0; 6.5.1.2 Engines subject to Section 8.0; 6.5.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0. 6.5.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0. 6.5.2 Procedures requiring the operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits. 6.5.3 Procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan. 6.5.4 Procedures for the corrective actions on the noncompliant parameter(s) that the operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations. 6.5.5 Procedures for the operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations. 6.5.6 Procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating	**The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet these section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	NOx, CO, VOC, or oxygen concentrations. 6.5.6 Procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating condition. 6.5.7 Procedures and a schedule for using a portable NOx analyzer to take NOx emission readings pursuant to Section 5.6.9. 6.5.8 Procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.6.1 and 5.6.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO. 6.5.9 Procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine owner that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate or Permit-Exempt Equipment Registration. The owner of an engine may request a change to the I&M plan at any time.	condition. 6.5.7 Procedures and a schedule for using a portable NOx analyzer to take NO_x emission readings pursuant to Section 5.8.9. 6.5.8 Procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.8.1 and 5.8.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO. 6.5.9 Procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine operator that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator of an engine may request a change to the I&M plan at any time.	
7.0 Compliance Schedules	7.1 Loss of Exemption The owner of an engine which becomes subject to the emission limits/standards of this rule through loss of exemption shall not operate the subject engine, except as required for obtaining a new or modified Permit-to-Operate or Permit-Exempt Equipment Registration for the engine, until the owner demonstrates that the subject engine is in full compliance with the requirements of this rule.	7.1 Loss of Exemption The operator of an engine which becomes subject to the emission limits/standards of this rule through loss of exemption shall not operate the subject engine, except as required for obtaining a new or modified Permit-to-Operate or Permit-Exempt Equipment Registration for the engine, until the operator demonstrates that the subject engine is in full compliance with the requirements of this rule.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	7.2 Permanent Removal of an Engine The owner of an engine who elects to permanently remove the engine from service shall comply with all of the following conditions: 7.2.1 Comply with all applicable requirements of this rule until the engine is permanently removed from service; 7.2.2 Submit a letter to the APCO no later than 14 days before the engine is permanently removed from service, stating the intent to	7.2 Permanent Removal of an Engine The operator of an engine who elects to permanently remove the engine from service shall comply with all of the following conditions: 7.2.1 Comply with all applicable requirements of this rule until the engine is permanently removed from service; 7.2.2 Submit a letter to the APCO no later than 14 days before the engine is permanently	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	permanently remove the engine from service. The engine removal letter can be submitted with the emission control plan, if any; and 7.2.3 Permanently remove the engine from service and officially surrender the Permit-to-Operate or Permit-Exempt Equipment Registration, if any, to the APCO no later than 30 days after the engine is permanently removed from service.	removed from service, stating the intent to permanently remove the engine from service. The engine removal letter can be submitted with the emission control plan, if any; and 7.2.3 Permanently remove the engine from service and officially surrender the Permit-to-Operate or Permit-Exempt Equipment Registration, if any, to the APCO no later than 30 days after the engine is permanently removed from	
	7.3 Compliance Schedule for an AO Compression-Ignited Engine 7.3.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, Permit-Exempt Equipment Registration Application and Authority-to-Construct for an AO Compression-Ignited Engine 7.3.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than January 1, 2006. 7.3.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of Rule 4702, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, no later than six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702. 7.3.1.3 The owner of an engine that is subject to Section 5.1 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan, no later than three months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702. 7.3.2 Compliance Schedule - Monitoring and Recordkeeping for an AO Compression-Ignited Engine Subject to Section 5.1 and Section 5.7 On and after June 1, 2006, the owner of an engine that is subject to Section 5.1 and Section 5.7 of Rule 4702 shall be in compliance with the requirements of Section 5.7, Section 6.2.1.1, and Section 6.2.1.2. 7.3.3 Compliance Schedule - General for an AO Compression-Ignited Engine	7.3 AO Compression-Ignited Engine 7.3.1 The operator of an AO compression-ignited engine that is subject to Section 5.2 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of this rule, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, no later than six months before the engine is required to be in compliance with the requirements of Section 5.2. 7.3.2 The operator of an AO compression-ignited engine that is subject to Section 5.2 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan, no later than three months before the engine is required to be in compliance with the requirements of Section 5.2. 7.3.3 Unless otherwise specified, the operator of an engine that is subject to the requirements of Section 5.2 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates in Table 4.	**The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	7.3.3.1 On and after January 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.2 or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702. 7.3.3.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.2.		
	7.4 Compliance Schedule for an AO Spark-Ignited Engine 7.4.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, Permit-Exempt Equipment Registration Application and Authority-to-Construct for an AO Spark-Ignited Engine 7.4.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than January 1, 2006. 7.4.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of Rule 4702, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, by June 1, 2006, or six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later. 7.4.1.3 The owner of an engine that is subject to Section 5.1 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan by January 1, 2007, or three months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later. 7.4.2 Compliance Schedule - Monitoring and Recordkeeping for an AO Spark-Ignited Engine Subject to Section 5.1 and Section 5.7 On and after June 1, 2006, the owner of an engine that is subject to Section 5.1 and Section 5.7 of Rule 4702 shall be in compliance with the requirements of Section 5.7.3 through Section		**AO speak-ignited engines are were required to be in full compliance with this rule by 1/1/10. The requirements from this section of the rule are obsolete and not required on the Non-SIP approved version of the rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	5.7.5, Section 6.2.1.1, and Section 6.2.1.2. 7.4.3 Compliance Schedule - General for an AO Spark-Ignited Engine 7.4.3.1 On and after June 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.2 or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702. 7.4.3.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.1.		
	7.5 Compliance Schedule for a Non-AO Compression-Ignited Engine 7.5.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, and Authority-to-Construct for a Non-AO Compression-Ignited Engine 7.5.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than June 1, 2006. 7.5.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) by June 1, 2006 or six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later. 7.5.2 Compliance Schedule - General for a Non-AO Compression-Ignited Engine 7.5.2.1 On and after June 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.1, Section 4.2, or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702. 7.5.2.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.2. 7.5.2.3 The owner of an engine that is subject to the requirements of Section 4.0 or Section 5.0 of Rule 4701 (Internal Combustion Engines – Phase 1) shall no longer be subject to the requirements of Rule 4701 pursuant to the following requirements: 7.5.2.3.1 For an engine that is subject to the requirements of Section 4.1, Section 4.2, or	7.4 Non-AO Compression-Ignited Engine 7.4.1 The operator of a non-AO compression-ignited engine that is subject to Section 5.2 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with rule requirements, shall submit such document(s) no later than six months before the engine is required to be in compliance with the requirements of Section 5.2. 7.4.2 Unless otherwise specified, the operator of an engine that is subject to the requirements of Section 5.2 shall be in full compliance with Rule 4702 by the indicated dates in Table 4.	**The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	Section 4.3 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702, or 7.5.2.3.2 For an engine that is subject to the requirements of Section 5.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702.		
	7.6 Compliance Schedule for a Non-AO Spark-Ignited Engine 7.6.1Compliance Schedule - Submission of Emission Control Plan, I&M Plan, and Authority-to-Construct for a Non-AO Spark-Ignited Engine Effective on and after June 16, 2005, the owner of an engine that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than six months before the engine is required to be in full compliance with Rule 4702. 7.6.2Compliance Schedule – Emission Limits for a Non-AO Spark-Ignited Engine The owner of a non-AO spark-ignited engine subject to the requirements of Rule 4702 shall not operate the engine unless the owner demonstrates and maintains the engine in compliance with the applicable requirements of Rule 4702 by the indicated dates below. Compliance Schedule 1 – Non-AO Spark-Ignited Engine For the purposes of Section 7.6, the total number of non-AO spark-ignited engines at a stationary source on a specified date includes those non-AO spark-ignited engines subject to Rule 4702 pursuant to Section 2.0 and excludes any engines exempt from Rule 4702 pursuant to Section 4.1 on the specified date. 7.6.3Compliance Schedule - General for a Non-AO Spark-Ignited Engine 7.6.3.1 On and after January 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.1 of Rule 4702 shall be in full compliance with Rule 4702.	Note: This section refers to Table 5. Table 5 can be found as an attachment to this document. 7.5 Non-AO Spark-Ignited Engine 7.5.1 An operator with non-AO spark-ignited engines at a stationary source subject to Table 2 or Section 8.0 emission limits, SOx control requirements of Section 5.7, and the SOx monitoring requirements of Section 5.10 shall comply with the schedule specified in Table 5. 7.5.2 As shown in Table 5, the column labeled: 7.5.2.1 "Emission Control Plan" identifies the date by which the operator shall submit an emission control plan pursuant to the applicable provisions of Section 6.1. The emission control plan shall identify all the Non-AO spark-ignited engines subject to Table 2 emission limits, SOx control and monitoring requirements. The emission control plan shall identify all the steps to be taken to comply with this rule. If there is no change to the previously approved emission control plan, the operator does not need to submit a new emission control plan. However, the operator shall submit a letter to the District indicating that previously approved plan is still valid. 7.5.2.2 "Authority to Construct and Inspection and Maintenance Plan" identifies the date by which the operator shall submit an Authority to Construct (if needed) and an Inspection and Monitoring Plan as specified in the applicable provisions of Section 6.5 for each engine subject to Table 2 emission limits, SOx control and monitoring requirements. If there is no change to the previously approved I&M plan, the operator does not need to submit a new I&M Plan. However, the operator shall submit a letter to the District indicating that previously approved I&M plan is still valid. 7.5.2.3 "Full Compliance" identifies the date by which the operator shall demonstrate that each unit is in compliance with Table 2	**The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	7.6.3.2 Unless otherwise specified, the owner of an engine subject to the requirements of Rule 4702 shall be in full compliance with Rule 4702 by the applicable compliance date pursuant to Section 7.6.2. 7.6.3.3 The owner of an engine that is subject to the requirements of Rule 4701 shall no longer be subject to the requirements of Rule 4701 pursuant to the following requirements: 7.6.3.3.1 For an engine that is subject to the requirements of Section 4.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on and after January 1, 2006, or 7.6.3.3.2 For an engine that is subject to the requirements of Section 4.2, Section 4.3, or Section 5.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702.	emission limits, SOx control and monitoring requirements.	
		7.6 Operator of Non-AO Spark-Ignited Engine Who Elects to Pay Fees In lieu of complying with Table 2 NOx emission limits, the operator of a non-AO spark-ignited engine who elects to pay annual fees under Section 5.2.2.2 and Section 5.6 shall comply with the following requirements: 7.6.1 By the date specified in Table 5, submit an Emission Control Plan which includes the following information: 7.6.1.1 Number of engines at a stationary source that will comply under Section 5.2.2.2, 7.6.1.2 Location of each engine, 7.6.1.3 Engine manufacturer, model designation, engine serial number, and Permit-to-Operate number, and 7.6.1.4 Each engine's rated brake horsepower, fuel type, and type of ignition. 7.6.2 The total annual fees shall be paid to the District in the following manner: 7.6.2.1 Payment shall be paid no later than June 30 of each year, for the emissions of the previous calendar year, 7.6.2.2 The first payment is due to the District no later than June 30 of the year in which full compliance is required for the specified percent of engines at a stationary as specified in Table 5 that the operator has opted to pay the annual fees,	**This section was added to address a new unit category. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

		7.6.2.3 Should June 30 fall on a day when the District is closed, the payment shall be made by the next District working day after June 30, and 7.6.2.4 Payments shall continue annually until the engine either is permanently removed from use in the San Joaquin Valley Air Basin and the Permit-to-Operate is surrendered or the operator demonstrates compliance with the applicable Table 2 emission limits. 7.6.2.5 The emissions fee for units that operate for less than the full calendar year before demonstrating compliance under Section 5.2, shall be based on the actual fuel used during the portion of the calendar year prior to demonstrating compliance or removing the unit from operation within the San Joaquin Valley Air Basin.	
8.0 Alternative Emission Control Plan (AECP)	An owner may comply with the NOx emission requirements of Section 5.1 for a group of engines by meeting the requirements below. An owner that is subject to the requirements below shall also comply with all the applicable requirements of Sections 5.0, 6.0, and 7.0. An engine that is not subject to Section 5.1 is not eligible for inclusion in an AECP. 8.1 During any 7 (seven) consecutive calendar day period, the owner shall operate all engines in the AECP to achieve an actual aggregate NOx emission level that is not greater than 90 percent of the NOx emissions that would be obtained by controlling the engines to comply individually with the NOx limits in Section 5.1. The owner shall operate engines in the AECP such that $AE_{Actual} <= 0.90\ (AE_{Limit})$ and shall notify the APCO within 24 hours of a violation of this section. 8.1.1 The actual aggregate NOx emissions (AE_{Actual}) is the sum of the actual NOX emissions, over a 7 (seven) consecutive calendar day period, from all engines in the AECP which were actually operated during that period. AE_{Actual} shall be calculated as follows: $$AE_{Actual} = \sum_i (EF_i)(F_i)(k_i)$$ where: i identifies each engine in the AECP. EF_i is the NOx emission factor of the engine established pursuant to Section 8.2 and approved by the APCO. F_i is the actual total fuel used by the engine	An operator may comply with the NOx emission requirements of Section 5.2 for a group of engines by meeting the requirements below. An operator that is subject to the requirements below shall also comply with all the applicable requirements of Sections 5.0, 6.0, and 7.0. Only engines subject to Section 5.2 are eligible for inclusion in an AECP. 8.1 During any seven (7) consecutive calendar day period, the operator shall operate all engines in the AECP to achieve an actual aggregate NOx emission level that is not greater than 90 percent of the NOx emissions that would be obtained by controlling the engines to comply individually with the NOx limits in Section 5.2. The operator shall operate engines in the AECP such that $AE_{Actual} \leq 0.90\ (AE_{Limit})$ and shall notify the APCO within 24 hours of any violation of this section. 8.1.1 The actual aggregate NOx emissions (AE_{Actual}) is the sum of the actual NO_X emissions, over a seven (7) consecutive calendar day period, from all engines in the AECP which were actually operated during that period. AE_{Actual} shall be calculated as follows: $$AE_{Actual} = \sum_i (EF_i)(F_i)(k_i)$$ where: i identifies each engine in the AECP. EF_i is the NOx emission factor of the engine established pursuant to Section 8.2 and approved by the APCO. F_i is the actual total fuel used by the engine	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	during the 7 (seven) consecutive calendar day period. k_i is a constant used to convert an engine's fuel use and NOx emission factor to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO. 8.1.2 The estimated aggregate NOx emissions limit (AE_{Limit}) is the sum of the NOx emissions, over a 7 (seven) consecutive calendar day period, for the same engines in the AECP which were actually operated during the same period as considered in Section 8.1.1, calculated with the NOx limits of Section 5.1 and the actual fuel usage during that 7 (seven) consecutive calendar day period. AE_{Limit} shall be calculated as follows: $$AE_{Limit} = \sum_i (EL_i)(F_i)(k_i)$$ where: i identifies each engine in the AECP. EL_i is the NOx emission limit from Section 5.1 for each engine. F_i is the actual total fuel used by the engine during the 7 (seven) consecutive calendar day period. k_i is a constant used to convert an engine's fuel use and NOx emission limit to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO. 8.1.3 Only engines in the AECP which were operated during the 7 (seven) consecutive calendar day period shall be included in the calculations of AE_{Limit} and AE_{Actual}. 8.1.4 The owner shall, at least one time each day the AECP is used, calculate and record the actual aggregate NOx emissions (AE_{Actual}) and the aggregate NOx emission limit (AE_{Limit}) for the preceding 7 (seven) consecutive calendar day period.	during the 7 (seven) consecutive calendar day period. k_i is a constant used to convert an engine's fuel use and NOx emission factor to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO. 8.1.2 The estimated aggregate NOx emissions limit (AE_{Limit}) is the sum of the NOx emissions, over a seven (7) consecutive calendar day period, for the same engines in the AECP which were actually operated during the same period as considered in Section 8.1.1, calculated with the NOx limits of Section 5.2 and the actual fuel usage during that seven (7) consecutive calendar day period. AE_{Limit} shall be calculated as follows: $$AE_{Limit} = \sum_i (EL_i)(F_i)(k_i)$$ where: i = identifies each engine in the AECP. EL_i = the NOx emission limit from Section 5.2 for each engine. F_i = the actual total fuel used by the engine during the seven (7) consecutive calendar day period. k_i = a constant used to convert an engine's fuel use and NOx emission limit to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO. 8.1.3 Only engines in the AECP which were operated during the seven (7) consecutive calendar day period shall be included in the calculations of AE_{Limit} and AE_{Actual}. 8.1.4 The operator shall, at least one time each day the AECP is used, calculate and record the actual aggregate NOx emissions (AE_{Actual}) and the aggregate NOx emission limit (AE_{Limit}) for the preceding seven (7) consecutive calendar day period.	
	8.2 The owner shall establish a NOx emission factor limit for each engine. The established NOx emission factor of an engine shall be no less than the NOx emission factor of the engine from the most recent source test conducted pursuant to Section 6.3 and approved by the APCO. The owner shall not operate an AECP engine in such a manner that NOx emissions exceed the established NOx emission factor of the engine.	8.2 The operator shall establish a NOx emission factor limit for each engine. The established NOx emission factor of an engine shall be no less than the NOx emission factor of the engine from the most recent source test conducted pursuant to Section 6.3 and approved by the APCO. The operator shall not operate an AECP engine in such a manner that NOx emissions exceed the established NOx emission factor of the engine.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	8.3 The owner shall submit the AECP to the APCO at least 18 months before compliance with the emission limits in Section 5.1 is required. The AECP shall: 8.3.1 Not be implemented prior to APCO approval. 8.3.2 Be enforceable on a daily basis by the District. 8.3.3 Contain any information necessary to determine eligibility of the engines for alternative emission control, including, but not limited to: 8.3.3.1 A list of engines subject to the AECP. All engines in an AECP shall be under the operational control of a single owner and shall be located at a single stationary source. 8.3.3.2 The NOx emission factor established by the engine owner for each engine pursuant to Section 8.2. 8.3.3.3 The estimated aggregate NOx emissions calculated according to Section 8.1.2. 8.3.4 Present the methodology for determining equivalency of actual NOx emissions under the proposed AECP as compared to the estimated NOx emissions allowed by this rule. 8.3.5 Detail the method of recording and verifying daily compliance with the AECP. 8.3.6 Demonstrate to the satisfaction of the APCO that the difference between the NOx emission limits of this rule and any lower actual NOx emissions will not be used to increase emissions from the same or another source. 8.3.7 Demonstrate that the engines subject to the requirements of Section 5.1 are in compliance with or on an approved schedule for compliance with all applicable District rules.	8.3 The operator shall submit the AECP to the APCO at least 18 months before compliance with the emission limits in section 5.2 is required. The AECP shall: 8.3.1 Not be implemented prior to APCO approval. 8.3.2 Be enforceable on a daily basis by the District. 8.3.3 Contain any information necessary to determine eligibility of the engines for alternative emission control, including, but not limited to: 8.3.3.1 A list of engines subject to the AECP. All engines in an AECP shall be under the operational control of a single operator and shall be located at a single stationary source, 8.3.3.2 The NOx emission factor established by the engine operator for each engine pursuant to Section 8.2, and 8.3.3.3 The estimated aggregate NOx emissions calculated according to Section 8.1.2. 8.3.4 Present the methodology for determining equivalency of actual NO_X emissions under the proposed AECP as compared to the estimated NO_X emissions allowed by this rule. 8.3.5 Detail the method of recording and verifying daily compliance with the AECP. 8.3.6 Demonstrate to the satisfaction of the APCO that the difference between the NOx emission limits of this rule and any lower actual NOx emissions will not be used to increase emissions from the same or another source. 8.3.7 Demonstrate that the engines subject to the requirements of Section 5.2 are in compliance with or on an approved schedule for compliance with all applicable District rules.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	8.4 The owner shall submit an updated or modified AECP for approval by the APCO prior to any of the following: 8.4.1 Modification of the engine(s) which would require an Authority-to-Construct. 8.4.2 When new or amended rules are adopted which regulate the emissions from the engines. 8.4.3 When the NOx emission factor established by the engine owner for an engine pursuant to Section 8.2 is modified.	8.4 The operator shall submit an updated or modified AECP for approval by the APCO prior to any of the following: 8.4.1 Modification of the engine(s) which would require an Authority-to- Construct; 8.4.2 When new or amended rules are adopted which regulate the emissions from the engines; or 8.4.3 When the NOx emission factor established by the engine operator for an engine pursuant to Section 8.2 is modified.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	8.5 In addition to the records kept pursuant to Section 6.2, the owner shall maintain records, on a daily basis, of the parameters needed to demonstrate compliance with the applicable NOx emission limits when operating under the AECP. These records shall be retained for at least five years, shall be readily available, and be made available to the APCO upon request. The records shall include, but are not limited to, the following for each engine unless otherwise indicated: 8.5.1 Total hours of operation. 8.5.2 Type and quantity (cubic feet of gas or gallons of liquid) of fuel used. 8.5.3 The actual NOx emissions limits to be included in the calculation of AE_{Actual} pursuant to Section 8.1.1. 8.5.4 The actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECP calculated pursuant to Section 8.1.1. 8.5.5 The estimated NOx emissions limits to be included in the calculation of AE_{Limit} pursuant to Section 8.1.2. 8.5.6 The estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECP calculated pursuant to Section 8.1.2. 8.5.7 The comparison of the actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECP and 90 percent of the estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECP to demonstrate compliance with Section 8.1. 8.5.8 Any other parameters needed to demonstrate daily compliance with the applicable NOx emission limits when operating under the AECP.	8.5 In addition to the records kept pursuant to Section 6.2, the operator shall maintain records, on a daily basis, of the parameters needed to demonstrate compliance with the applicable NOx emission limits when operating under the AECP. These records shall be retained for at least five years, shall be readily available, and be made available to the APCO upon request. The records shall include, but are not limited to, the following for each engine unless otherwise indicated: 8.5.1 Total hours of operation, 8.5.2 Type and quantity (cubic feet of gas or gallons of liquid) of fuel used, 8.5.3 The actual NOx emissions limits to be included in the calculation of AE_{Actual} pursuant to Section 8.1.1, 8.5.4 The actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECP calculated pursuant to Section 8.1.1, 8.5.5 The estimated NOx emissions limits to be included in the calculation of AE_{Limit} pursuant to Section 8.1.2, 8.5.6 The estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECP calculated pursuant to Section 8.1.2, 8.5.7 The comparison of the actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECP and 90 percent of the estimated aggregate NO_X emissions (AE_{Limit}) for all the engines in the AECP to demonstrate compliance with Section 8.1, and 8.5.8 Any other parameters needed to demonstrate daily compliance with the applicable NOx emission limits when operating under the AECP.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	8.6 For the purpose of determining the quantity of spark-ignited engines in compliance pursuant to Section 7.6, a spark-ignited engine in an AECP shall not be considered to be in compliance until all spark-ignited engines in the AECP that have been designated to meet more stringent NOx emission factors pursuant to Section 8.2 are in compliance with the rule.	8.6 For the purpose of determining the quantity of spark-ignited engines in compliance pursuant to Section 7.5, a spark-ignited engine in an AECP shall not be considered to be in compliance until all spark-ignited engines in the AECP that have been designated to meet more stringent NOx emission factors pursuant to Section 8.2 are in compliance with the rule.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

9.0 Exhaust Control System Certification Requirements	9.1 To be considered for APCO certification, the manufacturer or operator shall comply with all of the following requirements: 9.1.1 Certification shall be based upon the emission source testing results of a specific exhaust control system. 9.1.2 A source testing protocol shall be submitted in accordance with the provisions of Rule 1081 (Source Sampling) for approval by the APCO prior to conducting the source test. The source testing protocol approved by the APCO shall be strictly adhered to during certification source testing. 9.1.3 Source testing shall be conducted over the range of operating parameters for which the unit(s) will be operated. 9.1.4 The source testing results shall demonstrate compliance with the emission limits of this rule for each model of exhaust control system(s) to be certified. 9.1.5 The source testing procedure and reports shall be prepared by an ARB- approved independent testing laboratory, and shall contain all the elements identified in the APCO-approved source testing protocol. 9.1.6 Source testing shall be conducted no more than 90 days prior to the date of submission of request for certification by the APCO. 9.1.7 Any additional supporting information required by the APCO to address other performance parameters.	9.1 To be considered for APCO certification, the manufacturer or operator shall comply with all of the following requirements: 9.1.1 Certification shall be based upon the emission source testing results of a specific exhaust control system, 9.1.2 A source testing protocol shall be submitted in accordance with the provisions of Rule 1081 (Source Sampling) for approval by the APCO prior to conducting the source test. The source testing protocol approved by the APCO shall be strictly adhered to during certification source testing, 9.1.3 Source testing shall be conducted over the range of operating parameters for which the unit(s) will be operated, 9.1.4 The source testing results shall demonstrate compliance with the emission limits of this rule for each model of exhaust control system(s) to be certified, 9.1.5 The source testing procedure and reports shall be prepared by an ARB approved independent testing laboratory, and shall contain all the elements identified in the APCO-approved source testing protocol, 9.1.6 Source testing shall be conducted no more than 90 days prior to the date of submission of request for certification by the APCO, and 9.1.7 Any additional supporting information required by the APCO to address other performance parameters.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	9.2 The manufacturer or operator requesting certification shall submit to the APCO the following information: 9.2.1 Copies of the source testing results conducted pursuant to the requirements of Section 9.1, and other pertinent technical data to demonstrate compliance with the emission limits of this rule. 9.2.2 The applicant shall sign and date the statement attesting to the accuracy of all information in the statement. 9.2.3 Name and address of the exhaust control system manufacturer or operator, brand name of the exhaust control unit, model number, and description of model of system(s) being certified.	9.2 The manufacturer or operator requesting certification shall submit to the APCO the following information: 9.2.1 Copies of the source testing results conducted pursuant to the requirements of Section 9.1, and other pertinent technical data to demonstrate compliance with the emission limits of this rule, 9.2.2 The applicant shall sign and date the statement attesting to the accuracy of all information in the statement, and 9.2.3 Name and address of the exhaust control system manufacturer or operator, brand name of the exhaust control unit, model number, and description of model of system(s) being certified.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

	9.3 The APCO will only approve an application for certification to the extent that the requirements of Sections 9.1 through 9.2 are met and the source testing results demonstrate that the emission limits of this rule are met.	9.3 The APCO will only approve an application for certification to the extent that the requirements of Sections 9.1 through 9.2 are met and the source testing results demonstrate that the emission limits of this rule are met.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	9.4 The APCO-approved certification is valid only for the range of operating parameters and conditions for which certification is issued.	9.4 The APCO-approved certification is valid only for the range of operating parameters and conditions for which certification is issued.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**
	9.5 The APCO shall publish a list of certified exhaust control systems after the certification process is completed.	9.5 The APCO shall publish a list of certified exhaust control systems after the certification process is completed.	**There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.**

District Rule 4702 was amended (8/18/2011). 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

SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 1 Emission Limits/Standards for a Spark-Ignited Internal Combustion Engine and Emission Limits/Standards and Compliance Schedule for a Spark-Ignited Engine Used Exclusively in Agricultural Operations (corrected to 15% oxygen on a dry basis)

Engine Type	NOx	CO	VOC
1. Rich-Burn			
a. Waste gas fueled	50 ppmv or 90% reduction	2000 ppmv	250 ppmv
b. Cyclic loaded, field gas fueled	50 ppmv	2000 ppmv	250 ppmv
c. All other engines	25 ppmv or 96% reduction	2000 ppmv	250 ppmv
2. Lean-Burn			
a. Two stroke, gaseous fueled, less than 100 horsepower	75 ppmv or 85% reduction	2000 ppmv	750 ppmv
b. All other engines	65 ppmv or 90% reduction	2000 ppmv	750 ppmv
3. Rich-Burn Engine Used Exclusively in Agricultural Operations			
a. Comply by 1/1/2009, or if owner has an agreement to electrify, comply by 1/1/2010	90 ppmv or 80% reduction	2000 ppmv	250 ppmv
4. Lean-Burn Engine Used Exclusively in Agricultural Operations			
a. Comply by 1/1/2009 or if owner has an agreement to electrify comply by 1/1/2010	150 ppmv or 70% reduction	2000 ppmv	750 ppmv
5. Certified Spark-Ignited Engine Used Exclusively in AO and installed on or before June 16, 2005			
a. Comply by 6/1/2006	Meet Certified Spark-Ignited Engine Standard of HC+NOx < 0.6 g/bhp-hr		

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Table 2 Emission Limits/Standards and Compliance Schedule for a Compression-Ignited Internal Combustion Engine (corrected to 15% oxygen on a dry basis)

Engine Type	Emission Limit/ Standard	Compliance Date
1. Non-Certified Compression-Ignited Engine		
a. Greater than 50 bhp but not more than 500 bhp	EPA Tier 3 or Tier 4	1/1/2010
b. Greater than 500 bhp but not more than 750 bhp and less than 1000 annual operating hours	EPA Tier 3	1/1/2010
c. Greater than 750 bhp and less than 1000 annual operating hours	EPA Tier 4	7/1/2011
d. Greater than 500 bhp and greater than or equal to 1000 annual operating hours	80 ppm NOx, 2,000 ppm CO, 750 ppm VOC	1/1/2008 or, if owner has an agreement to electrify, comply by 1/1/2010
2. Certified Compression-Ignited Engine		
a. EPA Certified Tier 1 or Tier 2 Engine	EPA Tier 4	1/1/2015 or 12 years after installation date, whichever is later
b. EPA Certified Tier 3 or Tier 4 Engine	Meet Certified Compression-Ignited Engine Standard in effect at time of installation	At time of installation

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Compliance Schedule 1 - Non-AO Spark-Ignited Engine

Quantity of Non-AO Spark-Ignited Engines to be in Compliance at a Stationary Source	Compliance Date
a. 25% or more of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2005	6/1/05
b. 62.5% or more of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2006	6/1/06
c. 100% of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2007	6/1/07

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Table 1 Emission Limits/Standards for a Spark-Ignited Internal Combustion Engine rated at >50 bhp Used Exclusively in Non-AO (All ppmv limits are corrected to 15% oxygen on a dry basis.).			
Engine Type	NOx	CO	VOC
1. Rich-Burn			
a. Waste gas fueled	50 ppmv or 90% reduction	2000 ppmv	250 ppmv
b. Cyclic loaded, field gas fueled	50 ppmv	2000 ppmv	250 ppmv
c. All other engines	25 ppmv or 96% reduction	2000 ppmv	250 ppmv
2. Lean-Burn			
a. Two stroke, gaseous fueled, less than 100 horsepower	75 ppmv or 85% reduction	2000 ppmv	750 ppmv
b. All other engines	65 ppmv or 90% reduction	2000 ppmv	750 ppmv

Table 2 Emission Limits for a Spark-Ignited Internal Combustion Engine Rated at >50 bhp Used Exclusively in Non-AO (All ppmv limits are corrected to 15% oxygen on a dry basis). Emission Limits are effective according to the compliance schedule specified in Section 7.5.			
Engine Type	NOx (ppmv)	CO (ppmv)	VOC (ppmv)
1. Rich-Burn			
a. Waste Gas Fueled	50	2000	250
b. Cyclic Loaded, Field Gas Fueled	50	2000	250
c. Limited Use	25	2000	250
d. Rich-Burn Engine, not listed above	11	2000	250
2. Lean-Burn Engines			
a. Two-Stroke, Gaseous Fueled, >50 bhp and < 100 bhp	75	2000	750
b. Limited Use	65	2000	750
c. Lean-Burn Engine used for gas compression	65 ppmv or 93% reduction	2000	750
d. Lean-Burn Engine, not listed above	11	2000	750

Table 3 Emission Limits/Standards and Compliance Schedule for a Spark-Ignited Internal Combustion Engine >50 bhp Used Exclusively in AO (All ppmv limits are corrected to 15% oxygen on a dry basis).			
Engine Type	NOx Limit	CO Limit	VOC Limit
1. Rich-Burn	90 ppmv or 80% reduction	2000 ppmv	250 ppmv
2. Lean-Burn	150 ppmv or 70% reduction	2000 ppmv	750 ppmv
3. Certified and installed on or before June 16, 2005	Meet a Certified Spark-Ignited Engine Standard of HC + NOx < 0.6 g/bhp-hr		

Table 4 Emission Limits/Standards and Compliance Schedule for Compression-Ignited Internal Combustion Engine (corrected to 15% oxygen on a dry basis)		
Engine Type	Emission Limit/ Standard	Compliance Date
1. Non-Certified Compression-Ignited Engine Installed on or before June 1, 2006		
a. Greater than 50 bhp but not more than 500 bhp	EPA Tier 3 or Tier 4	1/1/2010
b. Greater than 500 bhp but not more than 750 bhp and less than 1000 annual operating hours	EPA Tier 3	1/1/2010
c. Greater than 750 bhp and less than 1000 annual operating hours	EPA Tier 4	7/1/2011
d. Greater than 500 bhp and greater than or equal to 1000 annual operating hours	80 ppmv NOx, 2,000 ppmv CO, 750 ppmv VOC	1/1/2008 or, if owner has an agreement to electrify, comply by 1/1/2010
2. Certified Compression-Ignited Engine		
a. EPA Certified Tier 1 or Tier 2 Engine	EPA Tier 4	1/1/2015 or 12 years after installation date, but not later than 6/1/2018
b. EPA Certified Tier 3 or Tier 4 Engine	Meet Certified Compression-Ignited Engine Standard in effect at time of installation	At time of installation

Table 5 Compliance Schedule for Non-AO Spark-Ignited Engines Subject to Table 2 Emission Limits, and SOx Control and Monitoring Requirements			
Engines to be in Compliance at a Stationary Source	Emission Control Plan	Authority to Construct and Inspection and Monitoring Plan	Full Compliance
Operator with a single engine at a stationary source			
Single Engine	1/1/12	1/1/13	1/1/14
Operator with at least two engines, but less than 12 engines at a stationary source			
33% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/13	1/1/14
66% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/14	1/1/15
100% of the engines subject to Table 2 emission limits	7/1/12	1/1/15	1/1/16
Operator with at least 12 engines at a stationary source			
25% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/13	1/1/14
50% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/14	1/1/15
75% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/15	1/1/16
100% of the engines subject to Table 2 emission limits	7/1/12	1/1/16	1/1/17