

MAY 11 2017

Mr. Daniel Beck
Chevron USA Inc.
P O Box 1392
Bakersfield, CA 93302

**Re: Notice of Significant Title V Permit Modification
District Facility # S-1131
Project # S-1162750**

Dear Mr. Beck:

Enclosed for your review is the District's analysis of an application for significant Title V permit modification for the facility identified above. Chevron USA Inc. is proposing a Title V significant permit modification to revise tank permit conditions.

Enclosed are the current Title V permit, proposed modified Title V permit, engineering evaluation, and application. The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the modified Title V operating permit. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

Mr. Daniel Beck
Page 2

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

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Tung Le, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

TITLE V APPLICATION REVIEW

Significant Modification

Project #: S-1162750

Engineer: Dan Klevann

Date: April 4, 2017

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

Contact Name: Daniel Beck
Phone: (661) 654-7141

Responsible Official: Adam Oliver
Title: Operations Supervisor

I. PROPOSAL

Chevron USA, Inc (CUSA) is proposing a Title V significant permit modification to their Title V operating permit. The applicant is proposing to replace enhanced leak detection and repair (LDAR) requirements stemming from an EPA consent decree (USEPA v. Texaco California Inc. and Texaco Exploration and Production Inc.) with District approved LDAR requirements for thirteen crude oil storage tanks. The removal of the consent decree requirements is allowed as the District has similar LDAR requirements that will still be required on the permits. EPA was consulted on the consent decree and they were OK with the removal since the District LDAR is still in place. The permits will be modified as follows:

Remove condition:

Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months.

Replacement condition:

All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank

components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work).

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

The equipment is located at the Kern River Oilfield within CUSA's Heavy Oil Central stationary source near Bakersfield, CA.

III. EQUIPMENT DESCRIPTION

Pre-Project

- S-1131-598-44:** 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO INCINERATING STEAM GENERATORS, STATION 36 TVR SYSTEM AND TEOR SYSTEM S-1131-1127, OR DOGGR APPROVED VAPOR DISPOSAL WELLS
- S-1131-608-21:** 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-613-19:** 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-629-11:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

- S-1131-630-11:** 1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-638-11:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-641-11:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-650-11:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-651-11:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #3 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-885-28:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM
- S-1131-886-21:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-S76 WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885
- S-1131-891-20:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885
- S-1131-892-20:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

Post-Project

- S-1131-598-45:** 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO INCINERATING STEAM GENERATORS, STATION 36 TVR SYSTEM AND TEOR SYSTEM S-1131-1127, OR DOGGR APPROVED VAPOR DISPOSAL WELLS

- S-1131-608-23:** 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-613-21:** 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-629-13:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-630-13:** 1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-638-13:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-641-13:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-650-13:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-651-13:** 37,600 BBL FIXED ROOF CRUDE SURGE TANK #3 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598
- S-1131-885-30:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM
- S-1131-886-22:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-S76 WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885
- S-1131-891-21:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885
- S-1131-892-21:** 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a significant modification because the applicant is proposing to relax recordkeeping requirements. As such, this project requires public review.

V. APPLICABLE REQUIREMENTS

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

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

CUSA is proposing to remove the following condition from each of the permits.

Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months.

CUSA will replace the above condition with the following condition on each permit.

All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected

and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work).

VII. COMPLIANCE

District Rule 2520, Section 6.0 describes the source's ability to make changes including significant permit modification. This modification does not meet the minor permit modification criteria pursuant to Section 3.20 described as follows.

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of Section 11.3 by including:

1. The identification of the source, the name and address of the permit holder, the activities and emissions change involved in the permit action;
2. The name and address of the District, the name and telephone number of District staff to contact for additional information;

3. The availability, upon request, of a statement that sets forth the legal and factual basis for the proposed permit conditions;
4. The location where the public may inspect the complete application, the District analysis, the proposed permit, and all relevant supporting materials;
5. A statement that the public may submit written comments regarding the proposed decision within at least 30 days from the date of publication and a brief description of commenting procedures, and
6. A statement that members of the public may request the APCO or his designee to preside over a public hearing for the purpose of receiving oral public comment, if a hearing has not already been scheduled. The APCO shall provide notice of any public hearing scheduled to address the proposed decision at least 30 days prior to such hearing;

VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permits
- B. Previous Title V Operating Permits
- C. Application

ATTACHMENT A

Proposed Modified Title V Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-598-45

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO INCINERATING STEAM GENERATORS, STATION 36 TVR SYSTEM AND TEOR SYSTEM S-1131-1127, OR DOGGR APPROVED VAPOR DISPOSAL WELLS: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Tank shall only be vented to vapor control system shared with crude oil processing tanks #S-1131-608, '-613, '-629, '-630, '-638, '-641, '-650, '-651, '-1097, and TEOR permit S-1131-1127; with collected vapors discharging to steam generators S-1131-82, '-95, '-98, '-98, '-99, '-859, DOGGR approved disposal well(s), or vapor control system listed on S-1131-885. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Sulfatreat system shall be located downstream of sampling point used for verification that gas processed by tank S-1131-598 contains < 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 113.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

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

10. Operator shall conduct quarterly sampling from the tank vapor control system's emergency gas exhaust header sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit
11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
15. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
18. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

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

21. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
23. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
27. When a D.O.G.G.R. disposal well is changed, or a new well is added, permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rules 1070; and 2520] Federally Enforceable Through Title V Permit
28. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
30. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
31. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
33. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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34. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
35. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
36. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
37. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
38. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
39. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-608-23

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598:REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-613-21

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598:REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-629-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 37,600 BBL FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-630-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-638-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 37,600 BBL FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-641-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 37,600 BBL FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-650-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 37,600 BBL FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-651-13

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 37,600 BBL FIXED ROOF CRUDE SURGE TANK #3 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

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

8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-885-30

EXPIRATION DATE: 02/28/2017

SECTION: SW03 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903, S-1131-909, and S-1131-598 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rates shall be calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 and the total number of vapor components. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components associated with vapor recovery trunk-line up to and including vapor compressors and approved disposal devices shall not exceed 23.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly sampling from the tank vapor control system's inlet header to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit

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

11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Collected VOC vapors shall be incinerated in steam generators S-1131-82, '-95, '-98, '-99, '-859, '-877, '-879, '-880, '-881, '-883, '-884, and '908 or disposed of in Department of Oil, Gas, and Geothermal Resources (DOGGR) approved vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
14. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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 2080] Federally Enforceable Through Title V Permit
16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 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 2080] Federally Enforceable Through Title V Permit
17. 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 2080] Federally Enforceable Through Title V Permit
18. 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 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 tank. [District Rule 2080] Federally Enforceable Through Title V Permit
20. 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 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
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

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

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. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
26. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
27. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
30. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
31. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
33. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

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

34. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
35. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
36. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
37. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
38. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
39. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit
41. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
42. Formerly S-1143-21. [District Rule 2010] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-886-22

EXPIRATION DATE: 02/28/2017

SECTION: SW03 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-S76 WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

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

9. 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 2080] Federally Enforceable Through Title V Permit
10. 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 2080] Federally Enforceable Through Title V Permit
11. 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 2080] Federally Enforceable Through Title V Permit
12. 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 2080] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
16. 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 Rules 2020 and 2080] Federally Enforceable Through Title V Permit
17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

21. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
22. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
23. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
24. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
26. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
28. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
31. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit
33. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
34. Formerly S-1143-22. [District Rule 2010] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-891-21

EXPIRATION DATE: 02/28/2017

SECTION: SE04 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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9. 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 2080] Federally Enforceable Through Title V Permit
10. 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 2080] Federally Enforceable Through Title V Permit
11. 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 2080] Federally Enforceable Through Title V Permit
12. 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 2080] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
16. 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 Rules 2020 and 2080] Federally Enforceable Through Title V Permit
17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

21. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
22. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
23. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
24. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
26. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
28. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
31. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070]
33. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
34. Formerly S-1143-27. [District Rule 2010] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-892-21

EXPIRATION DATE: 02/28/2017

SECTION: SE04 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885: REMOVE LDAR CONDITION BASED ON CONSENT DECREE AND REPLACE WITH LDAR CONDITION BASED ON RULE 4623

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

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

9. 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 2080] Federally Enforceable Through Title V Permit
10. 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 2080] Federally Enforceable Through Title V Permit
11. 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 2080] Federally Enforceable Through Title V Permit
12. 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 2080] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
16. 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 Rules 2020 and 2080] Federally Enforceable Through Title V Permit
17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Heavy Oil Tank Inspection and Maintenance: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
22. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
23. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
24. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
26. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
28. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
31. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit
33. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
34. Formerly S-1143-28. [District Rule 2010] Federally Enforceable Through Title V Permit

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

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ATTACHMENT B

Previous Title V Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-598-44

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO INCINERATING STEAM GENERATORS, STATION 36 TVR SYSTEM AND TEOR SYSTEM S-1131-1127, OR DOGGR APPROVED VAPOR DISPOSAL WELLS

PERMIT UNIT REQUIREMENTS

1. Tank shall only be vented to vapor control system shared with crude oil processing tanks #S-1131-608, '-613, '-629, '-630, '-638, '-641, '-650, '-651, '-1097, and TEOR permit S-1131-1127; with collected vapors discharging to steam generators S-1131-82, '-95, '-98, '-98, '-99, '-859, DOGGR approved disposal well(s), or vapor control system listed on S-1131-885. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Sulfatreat system shall be located downstream of sampling point used for verification that gas processed by tank S-1131-598 contains < 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 113.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly sampling from the tank vapor control system's emergency gas exhaust header sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
15. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
18. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
27. When a D.O.G.G.R. disposal well is changed, or a new well is added, permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rules 1070; and 2520] Federally Enforceable Through Title V Permit
28. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
30. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
31. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
33. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
34. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
35. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

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

36. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
37. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
38. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
39. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-608-21

EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed; and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-613-19

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-629-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

37,600 BBL FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-630-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
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18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-638-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

37,600 BBL FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-641-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

37,600 BBL FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-650-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

37,600 BBL FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
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16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-651-11

EXPIRATION DATE: 02/28/2017

SECTION: NE05 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

37,600 BBL FIXED ROOF CRUDE SURGE TANK #3 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

9. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
10. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-885-28

EXPIRATION DATE: 02/28/2017

SECTION: SW03 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903, S-1131-909, and S-1131-598 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rates shall be calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 and the total number of vapor components. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components associated with vapor recovery trunk-line up to and including vapor compressors and approved disposal devices shall not exceed 23.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly sampling from the tank vapor control system's inlet header to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit
11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

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

12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Collected VOC vapors shall be incinerated in steam generators S-1131-82, '-95, '-98, '-99, '-859, '-877, '-879, '-880, '-881, '-883, '-884, and '908 or disposed of in Department of Oil, Gas, and Geothermal Resources (DOGGR) approved vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
14. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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 2080] Federally Enforceable Through Title V Permit
16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 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 2080] Federally Enforceable Through Title V Permit
17. 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 2080] Federally Enforceable Through Title V Permit
18. 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 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 tank. [District Rule 2080] Federally Enforceable Through Title V Permit
20. 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 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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Tank roof, tank shell, tank vapor space appurtances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
27. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
30. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
31. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
33. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
34. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

35. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
36. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
37. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
38. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
39. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit
41. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
42. Formerly S-1143-21. [District Rule 2010] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-886-21

EXPIRATION DATE: 02/28/2017

SECTION: SW03 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-S76 WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

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

9. 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 2080] Federally Enforceable Through Title V Permit
10. 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 2080] Federally Enforceable Through Title V Permit
11. 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 2080] Federally Enforceable Through Title V Permit
12. 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 2080] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
16. 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 Rules 2020 and 2080] Federally Enforceable Through Title V Permit
17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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22. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
23. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
24. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
26. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
28. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
31. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit
33. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
34. Formerly S-1143-22. [District Rule 2010] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-891-20

EXPIRATION DATE: 02/28/2017

SECTION: SE04 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. 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 2080] Federally Enforceable Through Title V Permit
10. 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 2080] Federally Enforceable Through Title V Permit
11. 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 2080] Federally Enforceable Through Title V Permit
12. 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 2080] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
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17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Tank roof, tank shell, tank vapor space appurtances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
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21. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
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25. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
26. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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30. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
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32. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070]
33. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit
34. Formerly S-1143-27. [District Rule 2010] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-892-20

EXPIRATION DATE: 02/28/2017

SECTION: SE04 **TOWNSHIP:** 29S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
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8. This tank shall be degassed before commencing interior cleaning by one of the following methods (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) 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) 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 2080] Federally Enforceable Through Title V Permit

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27. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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34. Formerly S-1143-28. [District Rule 2010] Federally Enforceable Through Title V Permit

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ATTACHMENT C

Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org



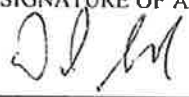
RECEIVED

JUL 20 2016

Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

SJVAPCD
Southern Region

1. PERMIT TO BE ISSUED TO: CHEVRON U.S.A. INC.		
2. MAILING ADDRESS: STREET/P.O. BOX: <u>PO Box 1392</u> CITY: <u>Bakersfield</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93302</u>		
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>Kern County Heavy Oil Central Stationary Source</u> CITY: _____ <u>/4 SECTION</u>		WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): 1311
4. GENERAL NATURE OF BUSINESS: Crude oil and gas production		INSTALL DATE: _____
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) Modify PTOs S-1131-598-44, -608-21, -613-19, -629-11, -630-11, -638-11, -641-11, -650-11, -651-11, -885-28, -886-21, -891-20, -892-20 Remove the condition from each permit requiring LDAR inspections in compliance with a dismissed consent decree and replace with an LDAR condition in compliance with Rule 4623.		
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <input type="checkbox"/> 3-day review <input checked="" type="checkbox"/> 10-day review <input type="checkbox"/> No review requested		
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, PTO #: <u>S-1131-598</u>	9. IS THIS APPLICATION FOR THE CONSTRUCTION OF A NEW FACILITY? (If "Yes" is checked, please complete the CEQA Information form) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Optional Section 11. DO YOU WANT TO RECEIVE INFORMATION ABOUT EITHER OF THE FOLLOWING VOLUNTARY PROGRAMS? <input type="checkbox"/> "HEALTHY AIR LIVING (HAL) BUSINESS PARTNER"  <input type="checkbox"/> "INSPECT" 
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, NOV/NTC #: <u>5016359</u>		
12. TYPE OR PRINT NAME OF APPLICANT: Gregory E. Pritchett	TITLE OF APPLICANT: SJVBU HES Manager	
13. SIGNATURE OF APPLICANT:  FOR G.E. PRITCHETT	DATE: <u>7/20/16</u>	PHONE #: (661) 654-7141 FAX #: E-MAIL: beckdl@chevron.com

FOR APCD USE ONLY:

Chevron NA Exploration Prod. Co.

DATE STAMP:	FILING FEE RECEIVED: \$ <u>1,027</u> CHECK #: <u>25658020</u>
	DATE PAID: <u>7/20/16</u>
PROJECT #: <u>S1162750</u>	FACILITY ID: <u>S-1131</u>

San Joaquin Valley Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: CHEVRON U.S.A. INC.	FACILITY ID: S-1131
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: CHEVRON U.S.A. INC.	
3. Agent to the Owner: N/A	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Adam Oliver
Signature of Responsible Official

7/20/2016
Date

Adam Oliver
Name of Responsible Official (please print)

Revise Station 36 and MCP Fugitive Monitoring

Operations Supervisor
Title of Responsible Official (please print)