



JAN 02 2018

Mr. Kris Rickards
Chevron USA, Inc.
PO Box 1392
Bakersfield, CA 93302

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: S-1141
Project Number: S-1173275

Dear Mr. Rickards:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project is to allow for tank modifications at the Station 2-22 oil and water treatment plant.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

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

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

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Modify tanks to allow 600 hrs/yr maintenance and move vapor recovery to new permit number.

Facility Name: Chevron USA Inc.

Date: November 16, 2017

Mailing Address: PO Box 1392
Bakersfield, CA 93302

Engineer: Dan Klevann
Lead Engineer: Rich Karrs

Contact Person: Kris Rickards

Telephone: 661-654-7796

Fax: 661-654-7004

E-Mail: Kristopher.rickards@chevron.com

Application #(s): S-1141-250-30, -479-28, -481-17, -482-17, -483-21, -484-21, -485-17, -486-17, -495-27, -496-21, -497-17, -498-17, -500-10, -501-12, -581-5, -582-5, -583-5, -610-0

Project #: S-1173275

Deemed Complete: September 12, 2017

I. Proposal

The primary business of Chevron USA Inc. (CUSA) is oil and gas production. CUSA is requesting Authorities to Construct (ATCs) to authorize disconnection of Tanks S-1141-250-30, -479-28, -481-17, -482-17, -483-21, -484-21, -485-17, -486-17, -495-27, -496-21, -497-17, -498-17, -500-10, -501-12, -581-5, -582-5, and -583-5, from vapor control system (VCS) currently listed on permit S-1141-250 for up to 600 hr/yr (nonconsecutive hours), to allow the VCS to be inoperable for periods of maintenance and repair activities, process upsets, and equipment breakdowns.

Additionally, CUSA would like to designate the VCS currently listed on permit S-1141-250 as a separate permit unit (S-1141-610). No physical changes to the equipment are proposed as a result of this permit designation.

CUSA received their Title V Permit on 11/30/01. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. CUSA must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410 Prevention of Significant Deterioration (6/16/11) -*This rule applies to attainment pollutants only. The subject equipment only emits VOC. VOC is not an attainment pollutant; therefore, this rule does not apply.*
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4102 Nuisance (12/17/92)
Rule 4623 Storage of Organic Liquids (5/19/05)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The equipment will be located at Station 2-22 in the Midway Sunset Oil Field, within Section 22, Township 31S, Range 22E. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The tanks and vessels at Station 2-22 receive production from thermally enhance oil recovery operations (TEOR) permitted under S-1141-250. VOC emissions from the tanks are controlled by a shared vapor control systems listed on S-1141-479 and S-1141-495. The vapor control system collects vapors from the tanks and routes the uncondensed vapors to a VOC control device that reduces inlet VOC emissions by at least 99% by weight. As maintenance and repair are required for long term compliance with District rules and regulations, this project is to include provisions for vapor control system downtime for maintenance and repair activities affecting the subject permit units.

V. Equipment Listing

Pre-Project Equipment Description:

S-1141-250-29 TEOR SYSTEM WITH COMPRESSORS, HEAT EXCHANGERS, KNOCKOUT VESSELS AND PIPING SERVING 2906 THERMALLY ENHANCED WELL VENTS

- S-1141-479-27 5,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-50-01 (STATION 2-22) VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-479 AND -481 THROUGH -486, -500, -501, 581, -582, AND -583 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS
- S-1141-481-16 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-482-16 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-04 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-483-20 20,000 GALLON CRUDE OIL PRODUCTION OPERATION TANK T-100-001 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-484-20 10,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-100-002 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-485-16 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-003 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-486-16 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-004 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-495-26 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-1 (STATION 2-22) WITH INLET GAS BOOT #T-200-1A BOTH VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-495 THROUGH -498 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), COMPRESSOR DISCHARGE LIQUID KNOCKOUT VESSEL(S), AND PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250 AND ASSOCIATED DISPOSAL OPTIONS
- S-1141-496-20 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-02 (STATION 2-22) WITH GAS BOOT #T-200-2A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495

- S-1141-497-16 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-03 (STATION 2-22) WITH GAS BOOT #T-200-3A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495
- S-1141-498-16 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-04 (STATION 2-22) WITH GAS BOOT #T-200-4A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495
- S-1141-500-9 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-501-11 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-2 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-581-4 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-01 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-582-4 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-02 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479
- S-1141-583-4 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

Proposed Modification:

Move vapor control systems from S-1141-250, '-479, and '-495 to its own permit S-1141-610-0. Allow tanks to perform maintenance and repair while disconnected from vapor control for a maximum of 600 hours per year.

- S-1141-250-30 MODIFICATION OF TEOR SYSTEM WITH COMPRESSORS, HEAT EXCHANGERS, KNOCKOUT VESSELS AND PIPING SERVING 2906 THERMALLY ENHANCED WELL VENTS: MOVE VCS TO ITS OWN PERMIT S-1141-610, REMOVE CONDITION 12, ADD PROVISION TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS PER YEAR

- S-1141-479-28 MODIFICATION OF 5,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-50-01 (STATION 2-22) VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-479 AND -481 THROUGH -486, -500, -501, 581, -582, AND -583 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS: MOVE VCS TO ITS OWN PERMIT, ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-481-17 MODIFICATION OF 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-482-17 MODIFICATION OF 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-04 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-483-21 MODIFICATION OF 20,000 GALLON CRUDE OIL PRODUCTION OPERATION TANK T-100-001 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-484-21 MODIFICATION OF 10,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-100-002 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-485-17 MODIFICATION OF 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-003 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-486-17 MODIFICATION OF 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-004 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

- S-1141-495-27 MODIFICATION OF 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-1 (STATION 2-22) WITH INLET GAS BOOT #T-200-1A BOTH VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-495 THROUGH '498 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), COMPRESSOR DISCHARGE LIQUID KNOCKOUT VESSEL(S), AND PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250 AND ASSOCIATED DISPOSAL OPTIONS: MOVE VCS TO ITS OWN PERMIT, ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-496-21 MODIFICATION OF 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-02 (STATION 2-22) WITH GAS BOOT #T-200-2A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-497-17 MODIFICATION OF 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-03 (STATION 2-22) WITH GAS BOOT #T-200-3A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-498-17 MODIFICATION OF 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-04 (STATION 2-22) WITH GAS BOOT #T-200-4A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-500-10 MODIFICATION OF 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-501-12 MODIFICATION OF 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-2 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-581-5 MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-01 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

- S-1141-582-5 MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-02 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-583-5 MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR
- S-1141-610-0 MIDWAY SUNSET STATION 2-22 VAPOR CONTROL SYSTEM SHARED WITH 16 PERMIT UNITS, INLET GAS BOOTS #T-200-1A, #T-200-2A, #T200-3A, AND #T-200-4 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS.

Post Project Equipment Description:

- S-1141-250-30 TEOR SYSTEM WITH COMPRESSORS, HEAT EXCHANGERS, KNOCKOUT VESSELS AND PIPING SERVING 2906 THERMALLY ENHANCED WELL VENTS VENTED TO VAPOR CONTROL SYSTEM S-1141-610
- S-1141-479-28 5,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-50-01 (STATION 2-22) VENTED TO VAPOR CONTROL SYSTEM S-1141-610
- S-1141-481-17 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-482-17 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-04 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-483-21 20,000 GALLON CRUDE OIL PRODUCTION OPERATION TANK #T-100-001 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-484-21 10,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-100-002 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-485-17 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-003 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610

- S-1141-486-17 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-004 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-495-27 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-1 (STATION 2-22) WITH INLET GAS BOOT #T-200-1A BOTH VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-496-21 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-02 (STATION 2-22) WITH GAS BOOT #T-200-2A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-497-17 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-03 (STATION 2-22) WITH GAS BOOT #T-200-3A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-498-17 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-04 (STATION 2-22) WITH GAS BOOT #T-200-4A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-500-10 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-501-12 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-2 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-581-5 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-01 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-582-5 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-02 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-583-5 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-610
- S-1141-610-0 MIDWAY SUNSET STATION 2-22 VAPOR CONTROL SYSTEM SHARED WITH 16 PERMIT UNITS, INLET GAS BOOTS #T-200-1A, #T-200-2A, #T200-3A, AND #T-200-4 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS.

VI. Emission Control Technology Evaluation

During maintenance and/or repair of the tank VCS, emissions will be minimized by keeping the tanks near constant level and returning the system to normal operation as quickly as possible to control the potential VOC emissions.

VII. General Calculations

A. Assumptions

- Facility operates 24 hours per day, 7 days per week, and 52 weeks per year
- Fugitive emissions for the tanks are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 average emissions factors. Pursuant to District policy, VOC emissions are not assessed for components handling heavy crude oil (API gravity <30 degrees). As components serving the subject permit units handle only heavy oil, only fugitive VOCs emitted from components in gas service are calculated.
- According to District Policy SSP 2015 (Procedures for Quantifying Fugitive VOC Emission Sources at Petroleum and SOCMI Facilities), VOC emissions from components that are always operated under a vacuum, oil and gas production operation components handling produced fluids with API gravities less than 30 degrees, piping and components handling fluid streams with a VOC content of 10% or less by weight, components in water/oil service with a water content greater than or equal to 50%, and components that are part of field gas production pipelines are considered negligible and not assessed.
- Emissions from TEOR wells are negligible as produced fluid from the well is transported to the tanks and is accounted for in the tank emission calculation
- All fugitive component emissions are assigned to the VCS (permits S-1141-250, S-1141-479 and S-1141-495 pre-project, and S-1141-610 post project). The VCS fugitives are limited to less than 10% VOC.
- When the tanks are disconnected from the VCS, they will operate at near constant level, so working losses are assumed to be zero.
- When using the District's tank calculation spreadsheet, flashing losses are assumed to be zero.
- The tanks will be disconnected from the VCS up to a maximum of 600 hr/yr.

B. Emission Factors

When connected to the VCS the tank emissions are zero. When the tanks are not connected to the VCS or the VCS is not operating, the tank emissions are calculated using the District tank calculation spreadsheet (based on the EPA Tanks calculator).

The VCS emissions are fugitive in nature and are calculated based on the California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999. Emissions in this project are calculated using the "average" emission factors.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

All of the tanks handle liquids with gravity less than 30 degrees and the VOC concentration of collected vapors is limited to less than 10% by weight. The pre-project potential to emit for the TEOR and VCS listed on permit S-1141-250 is based on the fugitive component counts for the TEOR operations.

Pre-project potential to emit for vapor recovery systems (S-1141-479-27 and S-1141-495-26) is zero as the systems are limited to less than 10% VOC in the gas components. Pre-project potential to emit for tanks is zero, as all fugitive emissions are assigned to the vapor control system.

Pre-Project Potential to Emit (PE1)		
	VOC- Daily PE1 (lb/day)	VOC - Annual PE1 (lb/yr)
S-1141-250-29	6,969.4	2,543,831
S-1141-479-27	0	0
S-1141-481-16	0	0
S-1141-482-16	0	0
S-1141-483-20	0	0
S-1141-484-20	0	0
S-1141-485-16	0	0
S-1141-486-16	0	0
S-1141-495-26	0	0
S-1141-496-20	0	0
S-1141-497-16	0	0
S-1141-498-16	0	0
S-1141-500-9	0	0
S-1141-501-11	0	0
S-1141-581-4	0	0
S-1141-582-4	0	0
S-1141-583-4	0	0

2. Post Project Potential to Emit (PE2)

Post-project potential to emit for vapor recovery system (S-1141-610-0) is zero as the components are carrying less than 10% VOC. There is no change to fugitive component counts with this project.

Daily and annual (600 hr/yr) emissions from the tanks are calculated in Appendix G and summarized below. When the VCS is operational, emissions from the tanks are zero, as all fugitive emissions are assigned to the vapor control system.

Post-Project Potential to Emit (PE2)		
	VOC - Daily PE2 (lb/day)	VOC -Annual PE2 (lb/yr)
S-1141-250-30	6,969.4	2,543,831
S-1141-479-28	3.3	83
S-1141-481-17	3.3	83
S-1141-482-17	3.3	83
S-1141-483-21	7.0	175
S-1141-484-21	7.0	175
S-1141-485-17	7.0	175
S-1141-486-17	7.0	175
S-1141-495-27	0.0	0
S-1141-496-21	10.9	273
S-1141-497-17	0.0	0
S-1141-498-17	10.9	273
S-1141-500-10	11.2	280
S-1141-501-12	11.2	280
S-1141-581-5	24.8	620
S-1141-582-5	24.8	620
S-1141-583-5	24.8	620
S-1141-610-0	0	0

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

The subject emissions units are equipped with a vapor control system which is at least 95% effective. Therefore, Baseline Emissions (BE) are equal to the Pre- Project Potential to Emit (PE1).

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	3,915	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

The project's combined total emission increases are calculated in section VII.C.2. and compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
VOC*	3,915	0	Yes

*If there is any emission increases in NO_x or VOC, this project is a Federal Major Modification and no further analysis is required.

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below.

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

Only list pollutants for which the project is a Federal Major Modification and delete other pollutants. The calculated Federal offset quantity is entered into the Major Modification tracking spreadsheet under the heading "Federal Offset Quantity"

VOC	Federal Offset Ratio		1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-1141-250-30	2,543,831	2,543,831	0
S-1141-479-28	0	83	83
S-1141-481-17	0	83	83
S-1141-482-17	0	83	83
S-1141-483-21	0	175	175
S-1141-484-21	0	175	175
S-1141-485-17	0	175	175
S-1141-486-17	0	175	175
S-1141-495-27	0	0	0
S-1114-496-21	0	273	273
S-1141-497-17	0	0	0
S-1141-498-17	0	273	273
S-1141-500-10	0	280	280
S-1141-501-12	0	280	280
S-1141-581-5	0	620	620
S-1141-582-5	0	620	620
S-1141-583-5	0	620	620
S-1141-610-0	0	0	0
Net Emission Change (lb/year):			3,915
Federal Offset Quantity: (NEC * 1.5)			5,873

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- Hydrogen sulfide (H2S)
- Total reduced sulfur (including H2S)
- Reduced sulfur compounds

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be an existing major source for PSD. Because the project is not located within 10 km of a Class 1 area - modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

I. Project Emission Increase – Significance Determination

a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no further PSD analysis is needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO₂	SO₂	CO	PM	PM₁₀
Total PE from New and Modified Units	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	N	N	N	N	N

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen.

Quarterly Net Emissions Change			
	VOC PE2 lb(qtr)	VOC PE1 (lb/qtr)	VOC QNEC (lb/qtr)
S-1141-250-30	635,957.8	635,957.8	0
S-1141-479-28	20.8	0.0	20.8
S-1141-481-17	20.8	0.0	20.8
S-1141-482-17	20.8	0.0	20.8
S-1141-483-21	43.8	0.0	43.8
S-1141-484-21	43.8	0.0	43.8
S-1141-485-17	43.8	0.0	43.8
S-1141-486-17	43.8	0.0	43.8
S-1141-495-27	0	0.0	0
S-1141-496-21	68.3	0.0	68.3
S-1141-497-17	0	0.0	0
S-1141-498-17	68.3	0.0	68.3
S-1141-500-10	70.0	0.0	70.0
S-1141-501-12	70.0	0.0	70.0
S-1141-581-5	155.0	0.0	155.0
S-1141-582-5	155.0	0.0	155.0
S-1141-583-5	155.0	0.0	155.0
S-1141-610-0	0	0.0	0

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As discussed in Section I above, there are no new emissions units associated with this project. Therefore, BACT for new units with PE > 2 lb/day purposes is not triggered.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE₂ = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

PE₁ = The emissions unit's PE prior to modification or relocation, (lb/day)

EF₂ = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF₂ is greater than EF₁ then EF₂/EF₁ shall be set to 1

EF₁ = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE}_2 - (\text{PE}_1 * (\text{EF}_2 / \text{EF}_1))$$

AIPE			
	VOC PE2 (lb/day)	VOC PE1 (lb/day):	AIPE (lb/day)
S-1141-250-30	6,544.5	6,544.5	0.0
S-1141-479-28	3.3	0.0	3.3
S-1141-481-17	3.3	0.0	3.3
S-1141-482-17	3.3	0.0	3.3
S-1141-483-21	7.0	0.0	7.0
S-1141-484-21	7.0	0.0	7.0
S-1141-485-17	7.0	0.0	7.0
S-1141-486-17	7.0	0.0	7.0
S-1141-495-27	0.0	0.0	0.0
S-1141-496-21	10.9	0.0	10.9
S-1141-497-17	0.0	0.0	0.0
S-1141-498-17	10.9	0.0	10.9
S-1141-500-10	11.2	0.0	11.2
S-1141-501-12	11.2	0.0	11.2
S-1141-581-5	24.8	0.0	24.8
S-1141-582-5	24.8	0.0	24.8
S-1141-583-5	24.8	0.0	24.8
S-1141-610-0	0.0	0.0	0.0

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute an SB 288 and/or Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

There is not an existing BACT Guideline for disconnection of tank and TEOR vapor control systems for maintenance and repair activities, process upsets, and equipment breakdowns, which is considered a highly unusual (nonroutine) activity. Due to the unique nature of this activity, a project specific BACT analysis will be performed. Control technologies associated with work practices minimizing VOC emissions form the basis of this BACT evaluation.

BACT Guideline 7.3.1, applies to Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank, <5,000 bbl tank capacity (see Appendix B) requires a PN valve as Achieved-in-Practice which is included in the list of work practices minimizing VOC emissions.

3. Top-Down BACT Analysis

Pursuant to the attached Top-Down BACT Analysis (see **Appendix C**), BACT has been satisfied with the following:

S-1141-479-28, -481-17, -482-17, -483-21, -484-21, -485-17, -486-17, -495-27, -496-21, -497-17, -498-17, -500-10, -501-12, -581-5, -582-5, -583-5, -610-0:

VOC: Work practices to minimize VOC emissions including:

- Near constant level tank operation
- Use of operational P/V valve where possible
- Work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts
- Minimization of tank openings and liquid drainage from disconnects
- Storage of coatings, adhesives, sealants, and organic solvents in closed containers
- Inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work.

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

CUSA is over the VOC offset threshold, therefore the quantity of offsets required will be calculated in the following section.

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for VOC and the SSPE2 is greater than the offset thresholds. Therefore, offset calculations will be required for this project.

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = HAE

As calculated in Section VII.C.6 above, the BE from the emissions units are equal to the PE1 since the units are Clean Emissions Units.

Also there are no increases in cargo carrier emissions. ICCE = 0 for all emissions units. The project is a Federal Major Modification and therefore the correct offset ratio for VOC is 1.5: 1.

Offsets can be determined as follows:

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$

The amount of VOC ERCs that need to be withdrawn for each permit unit and the project as a whole is shown in the table below:

VOC Offsets Required (lb/year)				
Permit	PE2	BE	PE2-BE	(PE2-BE) x 1.5
S-1141-250-30	2,543,831	2,543,831	0	
S-1141-479-28	83	0	83	
S-1141-481-17	83	0	83	
S-1141-482-17	83	0	83	
S-1141-483-21	175	0	175	
S-1141-484-21	175	0	175	
S-1141-485-17	175	0	175	
S-1141-486-17	175	0	175	
S-1141-495-27	0	0	0	
S-1141-496-21	273	0	273	
S-1141-497-17	0	0	0	
S-1141-498-17	273	0	273	
S-1141-500-10	280	0	280	
S-1141-501-12	280	0	280	
S-1141-581-5	620	0	620	
S-1141-582-5	620	0	620	
S-1141-583-5	620	0	620	
S-1141-610-0	0	0	0	
Project Total			3,915	5,873

Calculating the appropriate quarterly emissions to be offset is as follows:

$$\begin{aligned} \text{Quarterly offsets required (lb/qtr)} &= (5,873 \text{ lb VOC/year}) \div (4 \text{ quarters/year}) \\ &= 1,468.25 \text{ lb/qtr} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets				
(where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.25	Y	Y	Y	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>	<u>Total Annual</u>
1,468	1,468	1,468	1,469	5,873

The applicant has stated that the facility plans to use ERC certificate S-4859-1 to offset the increases in VOC emissions associated with this project. This certificate has available quarterly VOC credits as follows:

ERC#	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
S-4859-1	27,662	28,587	29,512	29,508

As seen in the previous table, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

S-1141-250-30

- Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 1st quarter- 1,468 lb, 2nd quarter- 1,468 lb, 3rd quarter- 1,468 lb, and 4th quarter- 1,469 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
- ERC Certificate Number S-4859-1 (VOC) (or certificate(s) split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,

- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project is an SB 288 or Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. Offset Threshold

Public notification is required if the SSPE is increased from below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant. The applicant is already over the offset thresholds for VOCs (the only affected pollutant); therefore no thresholds were surpassed with this project and public noticing for offset purposes is not required.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds			
Pollutant	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	0	20,000 lb/year	No
SO _x	0	20,000 lb/year	No
PM ₁₀	0	20,000 lb/year	No
CO	0	20,000 lb/year	No
VOC	3,915	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for Federal Major Modification purposes. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

S-1141-479-28, -481-17, -482-17, -483-21, -484-21, -485-17, -486-17, -495-27, -496-21, -497-17, -498-17, -500-10, -501-12, -581-5, -582-5, and -583-5

- Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per year. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rules 2201] Federally Enforceable Through Title V Permit

S-1141-610-0

- Vapor control system may be inoperable during maintenance/repairs/upset conditions of tanks S-1128-248, -250, -262, -263, -400, -401, -402, -404, -405, -406, -407, -935, -936, -938, -1014, -1016 and -1017 for up to 600 hours per year. District-approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rules 2201] Federally Enforceable Through Title V Permit
- 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 112.1 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. A condition addressing this requirement is included on the S-1141 facility-wide permit.

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA is conducted by the Technical Services group, for any project which has an increase in emissions and triggers public notification requirements. However, this project is only VOC emissions which have no AAQA standard. Therefore an AAQA is not required.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed above, this facility is a major source and this project does constitute a Federal Major Modification, therefore this requirement is applicable. CUSA's compliance certification is included in Appendix F.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant is not proposing to install any new equipment. Therefore no alternative site analysis is required.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates the New Source Performance Standards from 40 CFR Part 60. 40 CFR Part 60, Subparts, K, Ka, Kb, and OOOO could potentially apply to the tanks included in this project.

40 CFR Part 60, Subpart K is applicable to storage vessels whose construction, reconstruction, or modification commenced after June 11, 1973 and prior to May 19, 1978. As CUSA is proposing the modification of storage vessels/tanks post 1978, this subpart is not applicable.

40 CFR Part 60, Subpart Ka is applicable to storage vessels whose construction, reconstruction, or modification commenced after May 18, 1978, and prior to July 23, 1984. As CUSA is proposing the modification of storage vessels/tanks post 1984, this subpart is not applicable.

40 CFR Part 60, Subpart Kb is applicable to storage vessels whose construction, reconstruction, or modification commenced after July 23, 1984. As CUSA is proposing the modification of a storage vessel post 1984, this subpart could be applicable. However, as the proposed storage vessels will store liquid with a vapour pressure less than 3.5 kilopascals (kPa), or 0.5 psia, the units are exempt from the requirements of 40 CFR Part 60, Subpart Kb pursuant to Section 60.11b (b).

40 CFR Part 60, Subpart OOOO is applicable to storage vessels located in the oil and natural gas production segment which have commenced construction, modification, or reconstruction after August 23, 2011 and have emissions equal to or greater than 6 tpy. As CUSA is proposing the modification of this storage vessel post 2011, this subpart could be applicable. However, as the units' emissions are expected to be less than 6 tpy, the requirements of 40 CFR Part 60, Subpart OOOO are not applicable pursuant to Section 60.5395.

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringlemann 1 or 20% opacity. As long as the equipment is properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants that could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project (**Appendix E**), the total facility prioritization score including this project was less than or equal to one. Therefore, no future analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 20 in a million). As outlined by the HRA Summary in Appendix E of this report, the emissions increases for this project was determined to be less than significant.

Rule 4623 - Storage of Organic Liquids

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

The table below shows the general VOC Control System Requirements.

Tank Capacity (Gallons)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 psia to <1.5 psia	1.5 psia to <11 psia	≥11.0 psia
(Group A) 1,100 to 19,800	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group B) >19,800 to 39,600	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group C) >39,600	Internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system

The tanks have a capacity greater than 39,600 gallons, and are equipped with pressure-vacuum relief valves; therefore these tanks may operate without a vapor recovery system, only if TVP of the organic liquid remains below 0.5 psia. A condition will be listed on the permits as follows:

- When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [Rule 4623]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

District is a Responsible Agency

Oil and gas operations in Kern County must comply with the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting*. In 2015, Kern County revised the Kern County Zoning Ordinance Focused on Oil and Gas Activities (Kern Oil and Gas Zoning Ordinance) in regards to future oil and gas exploration, and drilling and production of hydrocarbon resource projects occurring within Kern County.

Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The EIR evaluated and disclosed to the public the environmental impacts associated with the growth of oil and gas exploration in Kern County, and determined that such growth will result in significant GHG impacts in the San Joaquin Valley. As such, the EIR included mitigation measures for GHG.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory authority for regulating GHGs. The District has determined that the applicant is responsible for implementing GHG mitigation measures imposed in the EIR by the Kern County for the Kern County Zoning Ordinance.

District CEQA Findings

The proposed project is located in Kern County and is thus subject to the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting*. The *Kern County Zoning Ordinance* was developed by the Kern County Planning Agency as a comprehensive set of goals, objectives, policies, and standards to guide development, expansion, and operation of oil and gas exploration within Kern County.

In 2015, Kern County revised their *Kern County Zoning Ordinance* in regards to exploration, drilling and production of hydrocarbon resources projects. Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The revised Kern County Zoning Ordinance establishes a written process (Conformity Review permit process or Minor Activity permit) by which oil and gas exploration projects involving site-specific

operations can be evaluated to determine whether the environmental effects of the operation were covered in the *Kern County Zoning Ordinance* EIR.

For stationary source emissions that are below the offset threshold, i.e. not required to surrender ERCs, and for non-stationary source emissions, Kern County entered into an Oil and Gas Emission Reduction Agreement (Oil and Gas ERA) with the District pursuant to the EIR. Per the Oil and Gas ERA, the applicant shall fully mitigate project emissions that are not required to be offset by District permit rules and regulations. Such mitigation can be achieved through any of the three options: (1) the applicants pay an air quality mitigation fee with each Oil and Gas Conformity Review permit issued by the Kern County, (2) the applicants may develop and propose to implement their own emission reduction projects instead of paying all or part of the mitigation fee, or (3) the applicants will be allowed to enter into an agreement directly with the District (if approved by Kern County) to develop an alternative fee schedule.

Kern County, as the lead agency, is the agency that will enforce the mitigation measures identified in the EIR, including the mitigation requirements of the Oil and Gas ERA. As a responsible agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CCR §15096). The District has reviewed the EIR prepared by Kern County, the Lead Agency for the project, and finds it to be adequate. To reduce project related impacts on air quality, the District evaluates emission controls for the project such as Best Available Control Technology (BACT) under District Rule 2201 (New and Modified Stationary Source Review). In addition, the District is requiring the applicant to surrender emission reduction credits (ERC) for stationary source emissions above the offset threshold.

Thus, the District concludes that through a combination of project design elements, permit conditions, and the Oil and Gas ERA, the project will be fully mitigated to result in no net increase in emissions. Pursuant to CCR §15096, prior to project approval and issuance of ATCs the District prepared findings.

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The revision to the *Kern County Zoning Ordinance* went through an extensive public process that included a Notice of Preparation, a preparation of an EIR, scoping meetings, and public hearings. The process led to the certification of the final EIR and approval of the revised *Kern County Zoning Ordinance* in November 2015 by the Kern County Board of Supervisors. As mentioned above, the proposed project will be fully mitigated and will

result in no net increase in emissions. In addition, the proposed project is not located at a facility of concern; therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC's S-1141-250-30, -479-28, -481-17, -482-17, -483-21, -484-21, -485-17, -486-17, -495-27, -496-21, -497-17, -498-17, -500-10, -501-12, -581-5, -582-5, -583-5, -610-0 subject to the permit conditions on the attached draft ATC's in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1141-250-30	3020-09-A	2,906 Wells	\$29,728.38
S-1141-479-28	3020-05-E	210,000 Gallons	\$270.00
S-1141-481-17	3020-05-E	420,000 Gallons	\$142.00
S-1141-482-17	3020-05-E	420,000 Gallons	\$142.00
S-1141-483-21	3020-05-E	420,000 Gallons	\$258.00
S-1141-484-21	3020-05-E	420,000 Gallons	\$258.00
S-1141-485-17	3020-05-E	420,000 Gallons	\$98.00
S-1141-486-17	3020-05-E	420,000 Gallons	\$258.00
S-1141-495-27	3020-05-F	840,000 Gallons	\$330.00
S-1141-496-21	3020-05-F	840,000 Gallons	\$330.00
S-1141-497-17	3020-05-F	840,000 Gallons	\$330.00
S-1141-498-17	3020-05-F	840,000 Gallons	\$330.00
S-1141-500-10	3020-05-E	315,000 Gallons	\$270.00
S-1141-501-12	3020-05-E	315,000 Gallons	\$270.00
S-1141-581-5	3020-05-F	966,000 Gallons	\$330.00
S-1141-582-5	3020-05-F	966,000 Gallons	\$330.00
S-1141-583-5	3020-05-F	966,000 Gallons	\$330.00
S-1141-610-0	3020-01-E	387 BHP	\$451.00

Appendixes

- A: Draft ATCs
- B: Current PTOs
- C: BACT Guideline
- D: BACT Analysis
- E: HRA Summary
- F: Compliance Certification
- G: Tank Calculations

Appendix A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-250-30

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: 22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF TEOR SYSTEM WITH COMPRESSORS, HEAT EXCHANGERS, KNOCKOUT VESSELS AND PIPING SERVING 2906 THERMALLY ENHANCED WELL VENTS: MOVE VCS TO ITS OWN PERMIT S-1141-610, REMOVE CONDITION 12, ADD PROVISION TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS PER YEAR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {1311} The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. TEOR operation with well vent vapor control system including: vapor collection piping, vapor compressors, fin-fan heat exchangers, gas/liquid separators, water/oil cooled heat exchangers, condensate drums/enclosed tanks, condensate pumps, gas injection compressors, condensate piping to production tankage, and non-condensable vapor piping to vapor disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This permit authorizes TEOR operations at the following locations: Sec 15, 20, 21, 22, 23, 24, 27, and 28 of T31S, R22E. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-250-30 Dec 14 2017 9:08AM -- KLEVANND : Joint Inspection NOT Required

6. Collected vapors shall be incinerated in District approved incineration devices as listed on this permit, sent to facility S-1114, or injected in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall maintain documentation of DOGGR approval for injection wells and make such documentation readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall document Department of Oil & Gas Geothermal Resources approval for vapor disposal wells prior to injection of vapors. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall cease injection vapors & notify the District immediately if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum fugitive VOC emissions rate from the TEOR operation shall not exceed 6,969.4 lb/day, calculated using average emission factors from EPA Protocol for Equipment Leak Emission Estimate, 1995, Table 2-4, Oil and Gas Production Operations. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC fraction of total gas stream after initial compression shall not exceed 10% by weight. Permittee shall conduct quarterly gas sampling downstream of the Car 2 or 3 injection compressors. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling shall only be required annually. Such sampling is deemed representative of all components at and downstream of the initial compressors. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Authorized incineration sources for collected vapors include steam generators S-1141-55, '60, '515, '516, '517, '518, '519. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Gas/liquid separators and condensate drums/tanks and all other equipment used to handle or store condensate shall be inclosed and shall vent only to vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Water/VOC condensate from gas/liquid separators and condensate drums shall be pumped only to production manifold or to production facilities equipped with an operating vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
14. TEOR operation shall include vapor piping from tank vapor control systems listed on permits S-1141-88, and '-610. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
16. This unit is subject to Casing Collection System Conditions on the facility wide permit S-1141-0. [District Rule 2520, 4401, and 4407] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-479-28

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-50-01 (STATION 2-22) VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-479 AND -481 THROUGH -486, -500, -501, 581, -582, AND -583 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS: MOVE VCS TO ITS OWN PERMIT, ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-479-28, Dec 14 2017 9:08AM -- KLEVANND : Joint Inspection NOT Required

5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-481-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-481-17 : Dec 14 2017 9:09AM - KLEVANN D : Joint Inspection NOT Required

7. This unit is subject Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-482-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-04 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1141-482-17 : Dec 14 2017 9:08AM -- KLEVANNND : Joint Inspection NOT Required

7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-483-21

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 20,000 GALLON CRUDE OIL PRODUCTION OPERATION TANK T-100-001 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-483-21 Dec 14 2017 9:08AM - KLEVA@NND : Joint Inspection NOT Required

7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-484-21

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-100-002 (STATION 2-22)
SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS
FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-484-21 Dec 14 2017 9:09AM - KLEVANNND : Joint Inspection NOT Required

7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-485-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-003 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1141-485-17 : Dec 14 2017 9:09AM - KLEVANNND : Joint Inspection NOT Required

7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-486-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-004 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479; ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1141-486-17 : Dec 14 2017 9:09AM - KLEVANND : Joint Inspection NOT Required

7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
12. During temporary periods of maintenance/repair/upsets covered by this permit , operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-495-27

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-1 (STATION 2-22) WITH INLET GAS BOOT #T-200-1A BOTH VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-495 THROUGH -498 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), COMPRESSOR DISCHARGE LIQUID KNOCKOUT VESSEL(S), AND PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250 AND ASSOCIATED DISPOSAL OPTIONS: MOVE VCS TO ITS OWN PERMIT, ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

S-1141-495-27 Dec 14 2017 9:09AM - KLEVA/ND - Joint Inspection NOT Required

5. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
12. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
13. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-496-21

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-02 (STATION 2-22) WITH GAS BOOT #T-200-2A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1141-496-21 : Dec 14 2017 9:09AM - KLEVANNND : Joint Inspection NOT Required

7. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
12. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
13. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-497-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-03 (STATION 2-22) WITH GAS BOOT #T-200-3A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-497-17 : Dec 14 2017 9:09AM - KLEVANNND : Joint Inspection NOT Required

7. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
12. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
13. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1141-498-17

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-04 (STATION 2-22) WITH GAS BOOT #T-200-4A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director X APCO

Arnaud Marjolle, Director of Permit Services

S-1141-498-17 : Dec 14 2017 9:09AM - KLEVANNND : Joint Inspection NOT Required

7. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
12. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
13. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
14. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-500-10

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1141-500-10 : Dec 14 2017 10:09AM - KLEVANNND : Joint Inspection NOT Required

6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-501-12

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-2 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-501-12, Dec 14 2017 9:09AM -- KLEVANNDD : Joint Inspection NOT Required

5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Tank shall vent only to vapor control equipment listed in S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-581-5

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-01 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Tank shall only vent to vapor recovery system identified on Permit S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

S-1141-581-5, Dec 14 2017 9:09AM -- KLEVANND : Joint Inspection NOT Required

6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-582-5

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-02 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Tank shall only vent to vapor recovery system identified on Permit S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1141-582-5: Dec 14 2017 9:09AM -- KLEVANN : Joint Inspection NOT Required

6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-583-5

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479: ALLOW TANK TO BE DISCONNECTED FROM VCS FOR UP TO 600 HRS/YR FOR MAINTENANCE AND REPAIR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank shall only vent to vapor recovery system identified on Permit S-1141-610, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1141-583-5 : Dec 14 2017 9:00AM -- KLEVANN : Joint Inspection NOT Required

6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1141-610. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Tank shall not be required to be served by vapor control system S-1141-610 during vapor recovery system (tanks to disposal devices, inclusive) maintenance/repairs/upset conditions for up to 600 hours per rolling 12-month period. Approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Tank shall not receive production from wells operated with closed casing vents when vapor control system is inoperable for tank maintenance/repairs/upset conditions. For TEOR wells producing to tank, records of dates well casing valves are open or closed shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When disconnected from the vapor control system for maintenance/repairs/upset conditions, tank will store organic liquid with a true vapor pressure less than 0.5 psia. [District Rules 2201, 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1141-610-0

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

EQUIPMENT DESCRIPTION:

MIDWAY SUNSET STATION 2-22 VAPOR CONTROL SYSTEM SHARED WITH 16 PERMIT UNITS, INLET GAS BOOTS #T-200-1A, #T-200-2A, #T200-3A, AND #T-200-4 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS.

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. ATC S-1141-479-28 and ATC S-1141-495-27 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 1st quarter- 1,468 lb, 2nd quarter- 1,468 lb, 3rd quarter- 1,468 lb, and 4th quarter- 1,469 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1141-610-0 : Dec 14 2017 9:00AM -- KLEVANNND : Joint Inspection NOT Required

5. ERC Certificate Number S-4859-1 (VOC) (or certificate(s) split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Vapor control system may be inoperable during maintenance/repairs/upset conditions of tanks S-1141-479, -481, -482, -483, -484, -485, -486, -495, -496, -497, -498, -500, -501, -581, -582, and -583 for up to 600 hours per rolling 12-month period. District-approved breakdowns and relief periods granted by variance and supported by the District shall not be included in this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Inspection, monitoring, and repair if necessary of fugitive emissions components installed when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be done within 7 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Records of the dates, hr/day, and hr/yr when vapor control system is inoperable for tank maintenance/repairs/upset conditions shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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 112.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. The efficiency of any VOC destruction device shall be measured by USEPA Method 18, 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

16. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Maximum VOC content of vapor in the vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Vapor control equipment compressor shall activate before the pressure relief valve vents on any of the units served by the vapor control equipment when operational. Vapor recovery system may be inoperable during maintenance/repairs/upset conditions for up to 600 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Condensate from vapor control system knockout vessels shall be transferred via closed system to vapor controlled produced water tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Authorized incineration devices for collected vapors are steam generators S-1141-26, '31, '44, '45, '46, '52, '53, '55, '60, '61, and emergency flare S-1141-514. [District Rule 2201] Federally Enforceable Through Title V Permit
21. During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201] Federally Enforceable Through Title V Permit
22. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
24. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. The District shall be notified within 24 hours of each maintenance/repairs/upset period. Records of the date, time, duration, and description of the activity shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

DRAFT

Appendix B
Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-250-29

EXPIRATION DATE: 02/28/2021

SECTION: 22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

TEOR SYSTEM WITH COMPRESSORS, HEAT EXCHANGERS, KNOCKOUT VESSELS AND PIPING SERVING 2906 THERMALLY ENHANCED WELL VENTS

PERMIT UNIT REQUIREMENTS

1. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. TEOR operation with well vent vapor control system including: vapor collection piping, vapor compressors, fin-fan heat exchangers, gas/liquid separators, water/oil cooled heat exchangers, condensate drums/enclosed tanks, condensate pumps, gas injection compressors, condensate piping to production tankage, and non-condensable vapor piping to vapor disposal devices. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This permit authorizes TEOR operations at the following locations: Sec 15, 20, 21, 22, 23, 24, 27, and 28 of T31S, R22E. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Collected vapors shall be incinerated in District approved incineration devices as listed on this permit, sent to facility S-1114, or injected in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall maintain documentation of DOGGR approval for injection wells and make such documentation readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall document Department of Oil & Gas Geothermal Resources approval for vapor disposal wells prior to injection of vapors. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall cease injection vapors & notify the District immediately if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Maximum fugitive VOC emissions rate from the TEOR operation shall not exceed 6,969.4 lb/day, calculated using average emission factors from EPA Protocol for Equipment Leak Emission Estimate, 1995, Table 2-4, Oil and Gas Production Operations. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC fraction of total gas stream after initial compression shall not exceed 10% by weight. Permittee shall conduct quarterly gas sampling downstream of the Car 2 or 3 injection compressors. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling shall only be required annually. Such sampling is deemed representative of all components at and downstream of the initial compressors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Authorized incineration sources for collected vapors include steam generators S-1141-55, '60, '515, '516, '517, '518, '519. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas/liquid separators and condensate drums/tanks and all other equipment used to handle or store condensate shall be inclosed and shall vent only to vapor control system. [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. Water/VOC condensate from gas/liquid separators and condensate drums shall be pumped only to production manifold or to production facilities equipped with an operating vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
12. TEOR operation shall include vapor piping from tank vapor control systems listed on permits S-1141-88, '-479, and '-495. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
14. This unit is subject to Casing Collection System Conditions on the facility wide permit S-1141-0. [District Rule 2520, 4401, and 4407] 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-1141-479-27

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-50-01 (STATION 2-22) VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-479 AND -481 THROUGH -486, -500, -501, 581, -582, AND -583 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), DISCHARGE LIQUID KNOCKOUT VESSEL(S), COMPRESSOR LIQUID KNOCKOUT VESSEL(S), AND NON-CONDENSIBLE VAPOR PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250, ASSOCIATED CONTROL OPTIONS, AND THREE 50 BBL PERMIT EXEMPT TANKS

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Vapor control equipment compressor(s) shall activate before the pressure relief valve on any of the units served by the vapor control system vents. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Condensate from the vapor control system knockout vessel shall be transferred via closed system to vapor controlled produced water tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Authorized incineration devices for collected vapors are steam generators S-1141-26, '31, '44, '45, '46, '52, '53, '55, '60, '61 and emergency flare S-1141-514. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The operator shall ensure that the vapor control system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-481-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-482-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

5,000 BBL (210,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-50-04 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-483-20

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

20,000 GALLON CRUDE OIL PRODUCTION OPERATION TANK T-100-001 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-484-20

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

10,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-100-002 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-485-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-003 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-486-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

10,000 BBL (420,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-100-004 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-495-26

EXPIRATION DATE: 02/28/2021

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-1 (STATION 2-22) WITH INLET GAS BOOT #T-200-1A BOTH VENTED TO VAPOR CONTROL SYSTEM SHARED BETWEEN PERMIT UNITS S-1141-495 THROUGH '1-498 INCLUDING AIR COOLED HEAT EXCHANGERS, COMPRESSOR INLET LIQUID KNOCKOUT VESSEL(S), COMPRESSOR(S), AFTERCOOLER(S), COMPRESSOR DISCHARGE LIQUID KNOCKOUT VESSEL(S), AND PIPING TO AUTHORIZED INCINERATION DEVICES OR TEOR CASING GAS COLLECTION SYSTEM S-1141-250 AND ASSOCIATED DISPOSAL OPTIONS

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Vapor control equipment compressor(s) shall activate before the pressure relief valve on any of the units served by the vapor control system vents. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Condensate from vapor control system knockout vessels shall be transferred via closed system to vapor controlled produced water tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Authorized incineration devices for collected vapors are steam generators S-1141-26, '31, '44, '45, '46, '52, '53, '55, '60, '61, and emergency flare S-1141-514. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623]
Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-496-20

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

20,000 BARREL CRUDE OIL PRODUCTION OPERATION TANK #T-200-02 (STATION 2-22) WITH GAS BOOT #T-200-2A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall vent only to vapor control equipment listed in S-1141-495, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-497-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-03 (STATION 2-22) WITH GAS BOOT #T-200-3A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall vent only to vapor control equipment listed in S-1141-495, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-498-16

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

20,000 BBL (840,000 GALLON) CRUDE OIL PRODUCTION OPERATION TANK #T-200-04 (STATION 2-22) WITH GAS BOOT #T-200-4A BOTH SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-495

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive and process produced fluids from North Midway Station 1. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When tank is in produced water service inlet gas boot may be bypassed. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall vent only to vapor control equipment listed in S-1141-495, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
11. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-500-9

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-1 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Tank may be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-501-11

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

7,500 BBL CRUDE OIL PRODUCTION OPERATION TANK D-2 SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Tank shall vent only to vapor control equipment listed in S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-581-4

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-01 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Tank shall only vent to vapor recovery system identified on Permit S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight.. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-582-4

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-02 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Tank shall only vent to vapor recovery system identified on Permit S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District NSR Rule and District Rule 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-583-4

EXPIRATION DATE: 02/28/2021

SECTION: SE22 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

23,000 BBL CRUDE OIL PRODUCTION OPERATION TANK #T-300-03 (STATION 2-22) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1141-479

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be used as wash tank, stock tank, shipping tank, reject tank, sump tank, or produced water tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall only vent to vapor recovery system identified on Permit S-1141-479, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This unit is subject to Heavy Oil Tank Inspection and Maintenance Conditions on the facility wide permit S-1141-0. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
8. This unit is subject to Heavy Oil Tank Cleaning Conditions on the facility wide permit S-1141-0. [District Rule 2080] Federally Enforceable Through Title V Permit
9. This unit is subject to Heavy Oil Tank Testing Conditions on the facility wide permit S-1141-0. [District Rule 4623] Federally Enforceable Through Title V Permit

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

Appendix C
BACT Guideline

Best Available Control Technology (BACT) Guideline 7.3.1
Last Update: 10/1/2002

Petroleum and Petrochemical Production - Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl Tank capacity **

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	PV-vent set to within 10% of maximum allowable pressure	99% control (Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); or equal).	

** *Converted from Determinations 7.1.11 (10/01/02).*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Appendix D
Top-Down BACT Analysis

Top-Down BACT Analysis

VOC emissions occur with temporary disconnection of the tank vapor control system for maintenance and repair activities, process upsets, and equipment breakdowns. There is no current BACT Guideline for this highly unusual, nonroutine, activity. Therefore, a project specific BACT analysis will be done. This project-specific BACT analysis is based on a similar analysis done for project S-1142757.

Step 1 - Identify All Possible Control Technologies

There is no applicable BACT Guideline for this class and category of equipment. The following control technologies have been identified:

VOC: Work practices to minimize VOC emissions (Achieved-in-Practice) including:

- Near constant level tank operation
- Use of operational P/V valve where possible
- Work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts
- Minimization of tank openings and liquid drainage from disconnects
- Storage of coatings, adhesives, sealants, and organic solvents in closed containers
- Inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work.

Step 2 - Eliminate Technologically Infeasible Options

All of the above identified control options are technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

VOC: Work practices to minimize VOC emissions (Achieved-in-Practice) including:

- Near constant level tank operation
- Use of operational P/V valve where possible
- Work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts
- Minimization of tank openings and liquid drainage from disconnects
- Storage of coatings, adhesives, sealants, and organic solvents in closed containers
- Inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work.

Step 4 - Cost Effectiveness Analysis

Applicant has selected the only option listed above and therefore a cost analysis is not required.

Step 5 - Select BACT

VOC: Work practices to minimize VOC emissions (Achieved-in-Practice) as stated in the following ATC condition:

- During temporary periods of maintenance/repair/upsets covered by this permit, operator shall use work practices to minimize VOC emissions including: near constant level tank operation, use of operational P/V valve where possible, work completed expeditiously with pre-staging of equipment and material and pre-fabrication of parts, minimization of tank openings and liquid drainage from disconnects, storage of coatings, adhesives, sealants, and organic solvents in closed containers, inspection, monitoring, and repair if necessary of fugitive emissions components at job site within 30 days of completion of work. [District Rule 2201]

APPENDIX E
Health Risk Assessment

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Dan Klevann – Permit Services
 From: Jessica Rosas – Technical Services
 Date: December 12, 2017
 Facility Name: Chevron USA Inc.
 Location: T31S, R22E, Section 4
 Application #(s): S-1141-250-30, 479-28, 481-17, 482-17, 483-21, 484-21, 485-17,
 486-17, 495-27, 496-21, 497-17, 498-17, 500-10, 501-12, 581-5, 582-5, 583-5, 610-0
 Project #: S-1173275

A. RMR SUMMARY

RMR Summary						
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?
Unit 250-30 (Tank)	N/A	N/A	N/A	N/A	No	No
Unit 479-28 (Tank)	0.004	0.00	0.00	9.74E-11	No	No
Unit 481-17 (Tank)	0.004	0.00	0.00	1.00E-10	No	No
Unit 482-17 (Tank)	0.004	0.00	0.00	1.02E-10	No	No
Unit 483-21 (Tank)	0.008	0.00	0.00	1.92E-10	No	No
Unit 484-21 (Tank)	0.008	0.00	0.00	1.96E-10	No	No
Unit 485-17 (Tank)	0.008	0.00	0.00	2.00E-10	No	No
Unit 486-17 (Tank)	0.008	0.00	0.00	2.03E-10	No	No
Unit 495-27 (Tank)	0.000	0.00	0.00	0.00E00	No	No
Unit 496-21 (Tank)	0.013	0.01	0.00	2.91E-10	No	No
Unit 497-17 (Tank)	0.000	0.00	0.00	0.00E00	No	No
Unit 498-17 (Tank)	0.013	0.00	0.00	2.98E-10	No	No
Unit 500-10 (Tank)	0.013	0.00	0.00	3.95E-10	No	No
Unit 501-12 (Tank)	0.013	0.00	0.00	4.04E-10	No	No

Unit 581-5 (Tank)	0.029	0.01	0.00	9.41E-10	No	No
Unit 582-5 (Tank)	0.029	0.01	0.00	8.91E-10	No	No
Unit 583-5 (Tank)	0.029	0.01	0.00	8.48E-10	No	No
Unit 610-0 (Tank)	N/A	N/A	N/A	N/A	No	No
Project Totals	0.183	0.09	0.00	5.16E-09		
Facility Totals	>1	0.09	0.00	4.57E-07		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit #250-30, 479-28, 481-17, 482-17, 483-21, 484-21, 485-17, 486-17, 495-27, 496-21, 497-17, 498-17, 500-10, 501-12, 581-5, 582-5, 583-5, 610-0

No special requirements are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on December 5, 2017, to perform a Risk Management Review and Ambient Air Quality Analysis (AAQA) for a proposed modification to a Vapor Recovery System. The modification consisted of: moving a vapor recovery system from unit 250-29 to a separate permit under unit 610-0. The emissions from 610-0 are not increase emissions, just moving emissions from permit -250 to -610. A provision to allow tanks to be disconnected from VCS for up to 600 hours per year for maintenance activities is also being proposed. There will be no physical location change to the VCS; the emissions are for administrative purposes.

II. Analysis

Toxic emissions from Oilfield Fugitives were calculated using emission factors derived from 1991 source tests of central valley sites, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Fellows to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 479-28			
Source Type	Area	Location Type	Rural
X-Length (m)	14.1	Closest Receptor (m)	365
Y-Length (m)	13.1	Type of Receptor	Business
Release Height (m)	0.914	Pollutant Type	VOC
Emission Rate (lb/hr)	0.14	Emission Rate (lb/yr)	83

Analysis Parameters Unit 481-17			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.14	Emission Rate (lb/yr)	83

Analysis Parameters Unit 482-17			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.14	Emission Rate (lb/yr)	83

Analysis Parameters Unit 483-21			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.29	Emission Rate (lb/yr)	175

Analysis Parameters Unit 484-21			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.29	Emission Rate (lb/yr)	175

Analysis Parameters Unit 485-17			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.29	Emission Rate (lb/yr)	175

Analysis Parameters Unit 486-17			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.29	Emission Rate (lb/yr)	175

Analysis Parameters Unit 496-21			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.45	Emission Rate (lb/yr)	273

Analysis Parameters Unit 498-17			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.45	Emission Rate (lb/yr)	273

Analysis Parameters Unit 500-10			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.46	Emission Rate (lb/yr)	280

Analysis Parameters Unit 501-12			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	0.46	Emission Rate (lb/yr)	280

Analysis Parameters Unit 581-5			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	1.03	Emission Rate (lb/yr)	620

Analysis Parameters Unit 582-5			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	1.03	Emission Rate (lb/yr)	620

Analysis Parameters Unit 583-5			
Source Type	Area	Location Type	Rural
X-Length (m)	65.83	Closest Receptor (m)	365
Y-Length (m)	45.72	Type of Receptor	Business
Release Height (m)	9.14	Pollutant Type	VOC
Emission Rate (lb/hr)	1.03	Emission Rate (lb/yr)	620

AAQA

An AAQA is modeled for the criteria pollutants CO, NOx, SOx and PM10. However, there are no State or Federal standards for VOC. Therefore, an AAQA was not performed.

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary

APPENDIX F
Compliance Certification



San Joaquin Valley Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

COMPANY NAME: Chevron U.S.A., Inc.		FACILITY ID: S-1141
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 applicable 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.
- For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

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

Signature of Responsible Official

9/5/17
Date

Cory Carter
Name of Responsible Official (please print)

Plant Supervisor - Station 2-22
Title of Responsible Official (please print)

APPENDIX G

Tank Calculations

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-479
facility tank I.D.	T-50-01
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	39
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.4063
vapor space volume, V _v (cubic feet)		2874.48
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	1,199	3.28
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,199	3.3

Summary Table	
Permit Number	S-1141-479
Facility Tank I.D.	T-50-01
Tank capacity (bbl)	5,000
Tank diameter (ft)	39
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	3.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,199

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-481
facility tank I.D.	T-50-03
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	39
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.4063
vapor space volume, V _v (cubic feet)		2874.48
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	1,199	3.28
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,199	3.3

Summary Table	
Permit Number	S-1141-481
Facility Tank I.D.	T-50-03
Tank capacity (bbl)	10,000
Tank diameter (ft)	39
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	3.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,199

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-482
facility tank I.D.	T-50-04
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	39
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.4063
vapor space volume, V _v (cubic feet)		2874.48
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	1,199	3.28
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,199	3.3

Summary Table	
Permit Number	S-1141-482
Facility Tank I.D.	T-50-04
Tank capacity (bbl)	10,000
Tank diameter (ft)	39
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	3.3
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,199

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-483
facility tank I.D.	T-100-01
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	55
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{ix}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{in}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{ia}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.5729
vapor space volume, V _v (cubic feet)		6112.81
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	2,549	6.98
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	2,549	7.0

Summary Table	
Permit Number	S-1141-483
Facility Tank I.D.	T-100-01
Tank capacity (bbl)	10,000
Tank diameter (ft)	55
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	7.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	2,549

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-484
facility tank I.D.	T-100-02
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	55
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.5729
vapor space volume, V _v (cubic feet)		6112.81
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	2,549	6.98
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	2,549	7.0

Summary Table	
Permit Number	S-1141-484
Facility Tank I.D.	T-100-02
Tank capacity (bbl)	10,000
Tank diameter (ft)	55
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	7.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	2,549

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-485
facility tank I.D.	T-100-03
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	55
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{ix}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{in}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{ia}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.5729
vapor space volume, V _v (cubic feet)		6112.81
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	2,549	6.98
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	2,549	7.0

Summary Table	
Permit Number	S-1141-485
Facility Tank I.D.	T-100-03
Tank capacity (bbl)	10,000
Tank diameter (ft)	55
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	7.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	2,549

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-486
facility tank I.D.	T-100-04
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	55
capacity of tank (bbl)	10,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.5729
vapor space volume, V _v (cubic feet)		6112.81
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	2,549	6.98
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	2,549	7.0

Summary Table	
Permit Number	S-1141-486
Facility Tank I.D.	T-100-04
Tank capacity (bbl)	10,000
Tank diameter (ft)	55
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	7.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	2,549

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-496
facility tank I.D.	T-200-02
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	67
capacity of tank (bbl)	20,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	30
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.6979
vapor space volume, V _v (cubic feet)		9511.92
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	3,966	10.87
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	3,966	10.9

Summary Table	
Permit Number	S-1141-496
Facility Tank I.D.	T-200-02
Tank capacity (bbl)	20,000
Tank diameter (ft)	67
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	10.9
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	3,966

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-498
facility tank I.D.	T-200-04
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	67
capacity of tank (bbl)	20,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	32
average liquid height (feet)	30
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, Pa (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.6979
vapor space volume, V _v (cubic feet)		9511.92
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	3,966	10.87
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	3,966	10.9

Summary Table	
Permit Number	S-1141-498
Facility Tank I.D.	T-200-04
Tank capacity (bbl)	20,000
Tank diameter (ft)	67
Tank shell height (ft)	32
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	10.9
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	3,966

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-500
facility tank I.D.	T-75-01
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	68
capacity of tank (bbl)	7,500
conical or dome roof? {c, d}	c
shell height of tank (feet)	12
average liquid height (feet)	10
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.7083
vapor space volume, V _v (cubic feet)		9835.80
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	4,101	11.24
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	4,101	11.2

Summary Table	
Permit Number	S-1141-500
Facility Tank I.D.	T-75-01
Tank capacity (bbl)	7,500
Tank diameter (ft)	68
Tank shell height (ft)	12
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	11.2
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	4,101

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-501
facility tank I.D.	T-75-02
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	68
capacity of tank (bbl)	7,500
conical or dome roof? {c, d}	c
shell height of tank (feet)	12
average liquid height (feet)	10
are the roof and shell the same color? {yes,no}	yes
For roof: color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		0.7083
vapor space volume, V _v (cubic feet)		9835.80
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	4,101	11.24
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	4,101	11.2

Summary Table	
Permit Number	S-1141-501
Facility Tank I.D.	T-75-02
Tank capacity (bbl)	7,500
Tank diameter (ft)	68
Tank shell height (ft)	12
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	11.2
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	4,101

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-581
facility tank I.D.	T-200-05
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	96
capacity of tank (bbl)	23,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	18
average liquid height (feet)	16
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		1.0000
vapor space volume, V _v (cubic feet)		21714.69
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	9,054	24.81
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	9,054	24.8

Summary Table	
Permit Number	S-1141-581
Facility Tank I.D.	T-200-05
Tank capacity (bbl)	23,000
Tank diameter (ft)	96
Tank shell height (ft)	18
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	24.8
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	9,054

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-582
facility tank I.D.	T-200-06
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	96
capacity of tank (bbl)	23,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	18
average liquid height (feet)	16
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		1.0000
vapor space volume, V _v (cubic feet)		21714.69
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	9,054	24.81
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	9,054	24.8

Summary Table	
Permit Number	S-1141-582
Facility Tank I.D.	T-200-06
Tank capacity (bbl)	23,000
Tank diameter (ft)	96
Tank shell height (ft)	18
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	24.8
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	9,054

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1141-583
facility tank I.D.	T-200-07
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.49
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	yes
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	96
capacity of tank (bbl)	23,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	18
average liquid height (feet)	16
are the roof and shell the same color? {yes,no}	yes
For roof: color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	3
condition {1: Good, 2: Poor}	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		20,000
maximum annual fluid throughput (bbl)		7,300,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		-
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	153.2	4.0494
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	142.4	3.0929
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	147.8	3.5402
roof outage, H _{ro} (feet)		1.0000
vapor space volume, V _v (cubic feet)		21714.69
paint factor, alpha		0.54
vapor density, W _v (lb/cubic foot)		0.0075
daily vapor temperature range, delta T _v (degrees Rankine)		42.57
vapor space expansion factor, K _e		0.1521

Results	lb/year	lb/day
Standing Storage Loss	9,054	24.81
Working Loss	N/A	N/A
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	9,054	24.8

Summary Table	
Permit Number	S-1141-583
Facility Tank I.D.	T-200-07
Tank capacity (bbl)	23,000
Tank diameter (ft)	96
Tank shell height (ft)	18
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	20,000
Maximum Annual Fluid Throughput (bbl/year)	7,300,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	24.8
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	9,054