



JUL 30 2018

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

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: S-1131
Project Number: S-1182021

Dear Mr. Beck:

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. Chevron is proposing to revise tank permit conditions.

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,

AM
Arnaud Marjollet
Director of Permit Services

Enclosures

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

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Oilfield Tanks

Facility Name: Chevron USA Inc. Date: July 11, 2018-
Mailing Address: P O Box 1392 Engineer: Dan Klevann
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Application #(s): S-1131-598-52, '-885-32, '-892-23, '-1187-1, '-1188-1, '-1189-1
Project #: S-1182021
Deemed Complete: June 11, 2018

I. Proposal

The primary business of Chevron USA Inc. (Chevron) is oil production. Chevron has submitted an Authority to Construct (ATC) application for the following:

- Remove vapor recovery from tanks two 5,000 bbl tanks S-1131-885 and '-892. Operate the tanks as temporary overflow tanks.
- Connect three free-water knockout tanks S-1131-1187, '-1188, '-1189 to Station 36 vapor recovery system S-1131-598.
- Correct tanks that are connected to vapor control system on S-1131-598.

Chevron received their Title V Permit on 12/31/02. This modification can be classified as a Title V minor 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. Chevron 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)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4101	Visible Emissions (2/17/05)
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 the Monterey Central Plant (MCP) in the Kern River Oil Field, within the SW/4 of Section 03, Township 29S, Range 21E. 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 Monterey Central Plant tanks receive oil from the southeastern portion of the Kern River Oil Field prior to transport to the Kern River Station 36 facility. VOC emissions from the existing vessels are controlled by 99% by a shared vapor recovery system listed on permit S-1131-885. Gas is separated from oil in the three free water knockout (FWKO) vessels. Oil and water are piped from the FWKO vessels by pipeline to Station 36. The two tanks will continue to operate as overflow tanks. The Monterey Central Plant is operated mainly to minimize back pressure on the flow lines that bring production from the wells located south of the river.

V. Equipment Listing

Pre-Project Equipment Description:

S-1131-598-46: 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO STATION 36 TVR SYSTEM OR DOGGR APPROVED VAPOR DISPOSAL WELLS

S-1131-885-31: 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM

S-1131-892-22: 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885

Proposed Modification:

ATC's S-1131-1187-0 thru '-1189-0 were not implemented. ATC's S-1131-1187-1, thru '-1189-1 will cancel and replace the previous ATC's

S-1131-598-52: MODIFICATION OF 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO STATION 36 TVR SYSTEM OR DOGGR APPROVED VAPOR DISPOSAL WELLS:CONNECT S-1131-1187, '-1188, AND '-1189 TO VAPOR CONTROL SYSTEM, CORRECT TANKS CONNECTED TO VAPOR CONTROL

S-1131-885-32: MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM: REMOVE VAPOR RECOVERY AND LIMIT TO 45 DAYS PER YR OPERATION

S-1131-892-23-32: MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885: REMOVE VAPOR RECOVERY AND LIMIT TO 45 DAYS OPERATION

S-1131-1187-1: 1,700 BBL GAS SEPARATOR VESSEL (V-200) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

S-1131-1188-1: 1,700 BBL GAS SEPARATOR VESSEL (V-210) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

S-1131-1189-1: 1,700 BBL GAS SEPARATOR VESSEL (V-220) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

Post Project Equipment Description:

S-1131-598-52: 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO STATION 36 TVR SYSTEM OR DOGGR APPROVED VAPOR DISPOSAL WELLS

S-1131-885-32: 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75

S-1131-892-23: 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK

S-1131-1187-1: 1,700 BBL GAS SEPARATOR VESSEL (V-200) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

S-1131-1188-1: 1,700 BBL GAS SEPARATOR VESSEL (V-210) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

S-1131-1189-1: 1,700 BBL GAS SEPARATOR VESSEL (V-220) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-598

VI. Emission Control Technology Evaluation

The FWKO vessels at the MCP will be connected to an existing vapor control system shared by the tanks listed on S-1131-598. This control system reduces VOC emissions by 99%. The system consists of a shared compressor, header, and piping to each individual tank. From the compressor, the vapor is piped to steam generators authorized to incinerate vapors

VII. General Calculations**A. Assumptions**

The facility will operate 24 hrs per day, 7 days per week, 52 weeks per year. The tanks emit only volatile organic compounds (VOC).

ATC's S-1131-1187-0 thru '-1189-0 have not been implemented yet. Therefore, we will not assess any pre-project emissions from the three ATC's.

B. Emission Factors

Fugative emission factors are EPA protocol for Equipment Leaks Emission Estimate, 1995, Oil and Gas Production Operations Average Emission Factors. These values are used in the spreadsheet calculation of fugitive emissions for pre-project. Post-project the tanks '-885 and '-892 will use District tank emissions spreadsheet for fixed roof crude oil less than 26 API tanks. The other tanks will use the fugitive emissions calculations.

C. Calculations**1. Pre-Project Potential to Emit (PE1)**

The tanks are all connected to vapor control systems. The emissions are calculated by component counts and summarized below. The emissions limits are from the current permits. See Appendix B.

PE1		
Permit Unit	VOC Daily Emissions (lb/day)	VOC Annual Emissions (lb/year)
S-1131-598-46	113.2	41,318
S-1131-885-31	5.3 + 23.9 = 29.2	1,932 + 8,712 = 10,644
S-1131-892-22	5.3	1,932
S-1131-1187-0	-	-
S-1131-1188-0	-	-
S-1131-1189-0	-	-

2. Post Project Potential to Emit (PE2)

Tanks S-1131-1187, '-1188, and '-1189 will be connected to the vapor control system listed on S-1131-598. Tanks S-1131-885 and '-892 will be removed from vapor control and used as temporary overflow tanks. The overflow tank emissions will be calculated based on the District fixed roof tank spreadsheet which is based on EPA AP-42 emission factors. The emissions are calculated and summarized below. See Appendix E.

PE2		
Permit Unit	VOC Daily Emissions (lb/day)	VOC Annual Emissions (lb/year)
S-1131-598-52	113.2	41,318
S-1131-885-32	12.2	1,237
S-1131-892-23	12.2	1,237
S-1131-1187-1	3.5	1,288
S-1131-1188-1	3.5	1,288
S-1131-1189-1	3.5	1,288

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.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	-	>250	-	-	-	-
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	-	Y	-	-	-	-

As shown above, the facility is an existing PSD major source for at least one pollutant.

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.

a. BE VOC

As shown in Section VII.C.5 above, the facility is a major source for VOC emissions.

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.

This emissions unit is equipped with a vapor control system, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1 for each unit.

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 not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the SB 288 Major Modification calculation.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	0	50,000	No
SO _x	0	80,000	No
PM ₁₀	0	30,000	No
VOC	6,338	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.

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

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.

Step 1

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE}$$

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions

Permits S-1131-885 and '-892 are changing from fugitive to non-fugitive emissions therefore the baseline emissions for those permits is zero. The projected actual emissions is PE2. The emissions are shown in the table below.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	0	0	No
VOC*	2,474	0	Yes
PM ₁₀	0	30,000	Step 2 Required/No
PM _{2.5}	0	20,000	Step 2 Required/No
SO _x	0	80,000	Step 2 Required/No

*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.

VOC		Federal Offset Ratio	
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-1131-885	0	1,237	1,237
S-1131-892	0	1,237	1,237
Net Emission Change (lb/year):			2,474
Federal Offset Quantity: (NEC * 1.5)			3,711

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Rule 2410 Prevention of Significant Deterioration (PSD) Applicability determination. All post project emissions associated with this project are fugitive emissions; therefore, a Rule 2410 Prevention of Significant Deterioration (PSD) Applicability determination is not 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. Detailed QNEC calculations are included in Appendix F.

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 Adjusted Increase in Permitted Emissions (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

As discussed in Section I above, this project will result in the modification of emissions units. Therefore, a calculation of AIPE will be performed for each affected pollutant.

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

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

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

For the subject operation, EF₁ = EF₂

Therefore AIPE = PE₂ – PE₁

As demonstrated above, AIPE is greater than 2 lb/day for S-1131-892, and '-1187 thru '-1189. BACT for AIPE greater than 2.0 lb/day purposes is triggered for these units.

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

BACT Guideline 7.3.1, applies to fixed roof organic liquid storage tanks = or > 5,000 bbl capacity. Tanks S-1131-885 an '-892 are subject to this BACT guideline. There is not an existing BACT Guideline for disconnection of tank and TEOR vapor control system to operate the tank in an overflow capacity which is considered a highly unusual (nonroutine) activity. A project specific BACT analysis will be done to determine BACT for permits S-1131-1187 thru '-1189. (See Appendix D)

3. Top-Down BACT Analysis

BACT for Tanks S-1131-1187 thru S-1131-1189 has been satisfied by 99% control and connection to vapor control system.

Pursuant to the attached Top-Down BACT Analysis (see Attachment D), BACT has been satisfied for S-1131-892 with the following:

VOC: Work practices to minimize VOC emissions including:

- Near constant level tank operation
- Use of operational PV valve where possible
- Emptying of tank expeditiously
- Minimization of tank openings and liquid drainage from disconnects

B. Offsets

1. Offset Applicability

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

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE2	--	--	--	--	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

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 units are equal to the PE1 since the units are Clean Emissions Units

Also, there are five emission units associated with this project and there are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

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

S-1131-885

PE2 (VOC) = 1,237 lb/year

BE (VOC) = 10,644 lb/year

ICCE = 0 lb/year

Offsets Required (lb/year)

= $(\{1,237-10,644\} + \{1,237-1,932\} + \{1,237-0\} + \{1,237-0\} + \{1,237-0\} + 0) \times DOR$

= $(-6,391) \times DOR$

= 0 lb VOC/year

As demonstrated in the calculation above, the amount of offsets is zero. Therefore, offsets will not be required for this project.

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 SSPE 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. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	-	-	20,000 lb/year	No
SO _x	-	-	54,750 lb/year	No
PM ₁₀	-	-	29,200 lb/year	No
CO	-	-	200,000 lb/year	No
VOC	>20,000	>20,000	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

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	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	0	0	0	20,000 lb/year	No
SO _x	0	0	0	20,000 lb/year	No
PM ₁₀	0	0	0	20,000 lb/year	No
CO	0	0	0	20,000 lb/year	No
VOC	6,338	12,576	-6,238	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 does not constitute a Title V significant modification. Therefore, public noticing for Title V significant modifications is not required for this project.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

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.

DELs for the emission units in this project will be included on the ATCs in the form of tanks' throughput and the tank contents' maximum true vapor pressure (TVP). The permittee will be required to maintain accurate records of tank content TVP and tanks monthly average daily throughput to validate the DEL.

E. Compliance Assurance

1. Source Testing

The permittee will be required to perform periodic TVP testing for all tanks in this project using the latest EPA and CARB approved version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph" to validate non-applicability of Rule 4623. The testing shall be conducted once every 24 month period or every time when the source of liquid stored is changed. No additional source testing is required.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Record keeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will appear on the permits:

- Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] N

- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

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. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, Minor Permit Modifications are permit modifications that:

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

Additionally, Section 11.4 requires a description of the proposed change, the emissions resulting from the change, any new applicable requirements that will apply if the change occurs, suggested draft permits, compliance certification and an EPA 45-day review period of the proposed permit modification (or a shorter period if EPA has notified the District that EPA will not object to issuance of the permit modification, whichever is first).

As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATC(s)] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. 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. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

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 and could potentially apply to the storage tanks located at this facility.

40 CFR Part 60, Subparts, K, Ka, and Kb could potentially apply to the storage tanks located at this facility. However, pursuant to 40 CFR 60.110 (b), 60.110(a) (b), and 60.110(b) (b), these subparts do not apply to storage vessels less than 10,000 bbls, used for petroleum or condensate, that is stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

40 CFR Part 60, Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (constructed, reconstructed, or modified after 8/23/11) applies to single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment. The subject tanks are subject to this subpart. However, Subpart OOOO has no standards for tanks with annual VOC emissions less than 6 tons per year. Therefore, the subject tanks are not an affected facility and subpart OOOO does not apply.

Therefore, the requirements of this subpart are not applicable to this project.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to organic liquid storage operations.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge air contaminant shall which is as dark as or darker than 20% opacity. Compliance is expected. Check inspection files for any prior violations or problems with 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 which 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.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

Rule 4623 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.

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

{2480} This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] N

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

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, as the lead agency, is the agency that will enforce the mitigation measures identified 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. The District also prepared a full findings document. The full findings document, *California Environmental Quality Act (CEQA) Statement of Findings for the Kern County Zoning Ordinance EIR* contains the details of the District's findings regarding the Project. The District's implementation of the Kern Zoning Ordinance and its EIR applies to ATC applications received for any new/modified equipment used in oil/gas production in Kern County, including new wells. The full findings applies to the Project and the Project's related activity equipment(s) is covered under the Kern Zoning Ordinance. 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. Issue ATC's S-1131-598-52, '-885-32, '-892-23, '-1187-1, '-1188-1, '-1189-1 subject to the permit conditions on the attached draft ATC in **Appendix C**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1131-598-52	3020-05-G	1,806,000 gallons	\$440
S-1131-885-32	3020-05-E	210,000 gallons	\$283
S-1131-892-32	3020-05-E	210,000 gallons	\$283
S-1131-1187-1	3020-05-D	71,400 gallons	\$213
S-1131-1188-1	3020-05-D	71,400 gallons	\$213
S-1131-1189-1	3020-05-D	71,400 gallons	\$213

Appendixes

- A: Draft ATC
- B: Current PTO(s)
- C: BACT Guideline
- D: BACT Analysis
- E: Permit emissions
- F: Quarterly Net Emissions Change
- G: Emission Profile(s)
- H: Compliance Certification

APPENDIX A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1131-598-52

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 43,000 BBL FIXED ROOF SURGE TANK #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING SULFUR REMOVAL SYSTEM AND DISCHARGING TO STATION 36 TVR SYSTEM OR DOGGR APPROVED VAPOR DISPOSAL WELLS:CONNECT S-1131-1187, '-1188, AND '-1189 TO VAPOR CONTROL SYSTEM, CORRECT TANKS CONNECTED TO VAPOR CONTROL

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 S-1131-598-47 and S-1131-598-48 shall be implemented prior to this ATC being implemented. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall only be vented to vapor control system shared with crude oil processing tanks #S-1131-'-599, '-608, '-613 '-620, '-626, '-627, '-628, '-629, '-630, '-631, '-632, '-634, '-635, '-638, '-641, '-650, '-651, '-1097, TEOR permit S-1131-1127 ; with collected vapors discharging to steam generators S-1131-82, '-95, '-98, '-98, '-99, '-859, DOGGR approved disposal well(s), free water knockout tanks S-1131-1187, '-1188, '-1189. [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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1131-598-52 : Jul 27 2018 9:26AM -- KLEVANNND : Joint Inspection NOT Required

5. Sulfatreat system shall be located downstream of sampling point used for verification that gas processed by tank S-1131-598 contains < 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
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 Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 113.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Operator shall conduct quarterly sampling from the tank vapor control system's emergency gas exhaust header sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-'-599, '-608, '-613 '-620, '-626, '-627, '-628, '-629, '-630, '-631, '-632, '-634, '-635, '-638, '-641, '-650, '-651, '-1097, and free water knockout tanks S-1131-1187, '-1188, '-1189. [District Rule 2201] Federally Enforceable Through Title V Permit
14. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

18. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
21. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
25. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
26. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
27. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
28. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
30. When a D.O.G.G.R. disposal well is changed, or a new well is added, permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rules 1070; and 2520] Federally Enforceable Through Title V Permit
31. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520] Federally Enforceable Through Title V Permit
32. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
33. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
34. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit
36. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
37. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit
38. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit
39. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit
40. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit
41. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit
42. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1131-885-32

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SW03 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM: REMOVE VAPOR RECOVERY AND LIMIT TO 45 DAYS PER YR OPERATION

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. This tank shall be limited to 45 days (1,080 hours) of operation per year. [District Rule 2201]
4. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1131-885-32 : Jul 17 2018 9:28AM -- KLEVANNND : Joint Inspection NOT Required

6. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of petroleum stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
12. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
14. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
15. Formerly S-1143-21. [District Rule 2010] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1131-892-23

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885: REMOVE VAPOR RECOVERY AND LIMIT TO 45 DAYS OPERATION

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. This tank shall be limited to 45 days (1,080 hours) of operation per year. [District Rule 2201]
4. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] 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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1131-892-23 : Jul 17 2018 9:28AM -- KLEVANNID : Joint Inspection NOT Required

6. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of petroleum stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
12. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
14. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
15. Formerly S-1143-28. [District Rule 2010] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1131-1187-1

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SW03 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,700 BBL GAS SEPARATOR VESSEL (V-200) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885:CONNECT TO VAPOR CONTROL ON S-1131-598

CONDITIONS

- {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
- {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
- This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
- All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-1131-1187-1 : Jul 17 2018 9:28AM -- KLEVANNND : Joint Inspection NOT Required

5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
6. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
7. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
8. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
9. The operator shall maintain an accurate component count for this vessel according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
10. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
12. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
13. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
14. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
15. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
16. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
17. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
19. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1131-1188-1

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,700 BBL GAS SEPARATOR VESSEL (V-210) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885:CONNECT TO VAPOR CONTROL ON S-1131-598

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. This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1131-1188-1 : Jul 17 2018 9:28AM - KLEVANNID : Joint Inspection NOT Required

5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
6. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
7. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
8. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
9. The operator shall maintain an accurate component count for this vessel according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
10. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
12. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
13. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
14. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
15. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
16. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
17. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
19. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1131-1189-1

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,700 BBL GAS SEPARATOR VESSEL (V-220) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885:CONNECT TO VAPOR CONTROL ON S-1131-598

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. This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1131-1189-1 : Jul 17 2018 9:28AM - KLEVANND : Joint Inspection NOT Required

5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201]
6. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
7. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
8. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
9. The operator shall maintain an accurate component count for this vessel according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
10. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
12. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
13. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
14. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
15. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
16. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
17. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
19. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
20. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

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APPENDIX B
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-598-46

EXPIRATION DATE: 02/28/2023

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

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

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

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

11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
15. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
18. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-885-31

EXPIRATION DATE: 02/28/2023

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

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control systems S-1131-716 and S-1131-598 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emission rates shall be calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 and the total number of vapor components. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from components associated with vapor recovery trunk-line up to and including vapor compressors and approved disposal devices shall not exceed 23.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly sampling from the tank vapor control system's inlet header to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit
11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Collected VOC vapors shall be incinerated in steam generators S-1131-82, '-95, '-98, '-99, '-859, '-877, '-879, '-880, '-881, '-883, '-884, and '908 or disposed of in Department of Oil, Gas, and Geothermal Resources (DOGGR) approved vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit
14. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
17. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
18. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
19. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
20. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
22. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 2080] Federally Enforceable Through Title V Permit
23. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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24. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
26. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
27. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
30. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit
31. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit
32. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
33. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-892-22

EXPIRATION DATE: 02/28/2023

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

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

1. Well vent vapor control system S-1131-716 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
8. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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9. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
10. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
11. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
12. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
13. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
14. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 2080] Federally Enforceable Through Title V Permit
15. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 2080] Federally Enforceable Through Title V Permit
17. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
19. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-1187-0

ISSUANCE DATE: 04/12/2016

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:
1,700 BBL GAS SEPARATOR VESSEL (V-200) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon startup of the equipment authorized by this Authority to Construct (ATC), permit #s S-1131-891 and S-1131-892 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
3. This ATC shall be implemented concurrently with ATC #S-1131-885-29. [District Rule 2201]
4. This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
5. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201].

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.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1131-1187-0 - Jul 11 2018 2:42PM - KLEVANNND : Joint Inspection NOT Required

7. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
9. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
10. The operator shall maintain an accurate component count for this vessel according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
11. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
12. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
13. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
14. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
15. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
17. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
18. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
19. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
20. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
21. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-1188-0

ISSUANCE DATE: 04/12/2016

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:
1,700 BBL GAS SEPARATOR VESSEL (V-210) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon startup of the equipment authorized by this Authority to Construct (ATC), permit #s S-1131-891 and S-1131-892 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
3. This ATC shall be implemented concurrently with ATC #S-1131-885-29. [District Rule 2201]
4. This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
5. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-1131-1188-0 : Jul 11 2018 2:42PM -- KLEVANNND : Joint Inspection NOT Required

7. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
9. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
10. The operator shall maintain an accurate component count for this vessel according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
11. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
12. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
13. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
14. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
15. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
17. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
18. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
19. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
20. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
21. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-1189-0

ISSUANCE DATE: 04/12/2016

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:
1,700 BBL GAS SEPARATOR VESSEL (V-220) VENTED TO VAPOR CONTROL SYSTEM LISTED ON TANK S-1131-885

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon startup of the equipment authorized by this Authority to Construct (ATC), permit #s S-1131-891 and S-1131-892 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
3. This ATC shall be implemented concurrently with ATC #S-1131-885-29. [District Rule 2201]
4. This vessel shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the vessel, 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 6.4.6 of District Rule 4623. [District Rule 2201]
5. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

7. Any gauging or sampling device on a vessel vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. VOC fugitive emissions from the components in gas service on this vessel shall not exceed 3.5 lb/day. [District Rule 2201]
9. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
10. The operator shall maintain an accurate component count for this vessel according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. The operator shall update such records when new components are approved and installed. [District Rule 2201]
11. All piping, fittings, and valves on this vessel shall be inspected annually by the operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
12. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
13. This vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
14. The permittee shall conduct API gravity testing upon initial startup. [District Rule 4623]
15. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this vessel upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this vessel in order to maintain exemption from the rule. [District Rule 4623]
16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the vessel. [District Rule 4623]
17. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
18. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
19. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the vessel identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
20. The operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201]
21. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201]

APPENDIX C
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

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 contained 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.

***This is a Summary Page for this Class of Source**

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.2*

Last Update 10/1/2002

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

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	50% control, (Waste gas incinerated at scrubbed steam generator, heater treater or incinerator or compressed and injected in injection wells and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); or equal).	
SOx		95% control (Vapor collection system and either a) sulfur removal by scrubber with inspection and maintenance program or b) vapors no greater than 0.2 gr S/100 dscf; transfer of non-condensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available), or equal)	
VOC	99% Control (Waste gas incinerated in steam generator, heater treater or other fired equipment and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption; or equal).	

** Converted from Determinations 7.1.4 and 7.1.12 (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 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.

***This is a Summary Page for this Class of Source**

APPENDIX D

BACT Analysis

Top Down BACT Analysis Overflow Oil Storage Tanks

VOC emissions may occur when the produced fluids from the crude oil production wells enter the overflow oil storage tanks. Oil to the overflow tanks will represent an upset condition, and there is no current BACT Guideline for this highly unusual, nonroutine activity. Therefore, a project specific BACT analysis will be performed.

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.

1. VOC: Work practices to minimize VOC emissions (Achieved-in-Practice) including:
 - Near constant level tank operation
 - Use of operational P/V valve where possible
 - Emptying of tank expeditiously
 - Minimization of tank openings and liquid drainage from disconnects
2. Connection to vapor control system

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

1. Vapor Control System 99% control
2. VOC: Work practices to minimize VOC emissions (Achieved-in-Practice) including:
 - Near constant level tank operation
 - Use of operational P/V valve where possible
 - Emptying of tank expeditiously
 - Minimization of tank openings and liquid drainage from disconnects

Step 4 - Cost Effectiveness Analysis

The annualized capital cost for required replacement electrical transformer for vapor control system is

AP = (P) $\{[(i) (1 + i)^n]/[(1 + i)^n - 1]\}$, where

AP = Equivalent Annual Capital Cost of Control Equip.

P = Present value of the control equipment, including installation cost. \$205,000

VRU electrical transformers(cost per Chevron USA email, 6/7/18)

Present Value = \$205,000

i = interest rate (use 10% per policy)

n = equipment life (assume 10 years per policy)

$$AP= (P) \{[(0.1) (1 + 0.1)^{10}]/[(1 + 0.1)^{10} - 1]\}$$

$$AP = (P) \times (0.16274) = (\$205,000)(0.1627) = \$33,353/\text{year annualized}$$

Annual Costs:

Electric Cost: \$179,639/yr

Total Cost = Annualized Capital Cost + Annual Cost

$$= \$33,353/\text{yr} + \$179,369/\text{yr} = \$212,722/\text{yr}$$

For calculation of the amount of VOCs removed from each tank (emissions unit) with the vapor control system, 100% control is assumed. The VOCs removed annually are

$$\text{Tons/yr} = 2,474 \text{ lb/yr} / 2000 \text{ lb/ton} = 1.2 \text{ tons/yr}$$

$$\begin{aligned} \text{Annualized cost} &= \$212,722/\text{yr} / 1.2 \text{ tons/yr} \\ &= \$177,268/\text{ton} \end{aligned}$$

This exceeds the cost effectiveness threshold for VOCs of \$5,000/ton. Therefore, the vapor control system is not cost effective.

Step 5 - Select BACT

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

- Near constant level tank operation
- Use of operational P/V valve where possible
- Emptying of tank expeditiously
- Minimization of tank openings and liquid drainage from disconnects

APPENDIX E

Permit Emissions

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1131-885-32
facility tank I.D.	--
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.05
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	no
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)	38.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24.125
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}	4
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)		2,000
maximum annual fluid throughput (bbl)	90,000	90,000
-----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)	155.0	4.2359
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	144.2	3.2442
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	149.6	3.6916
roof outage, H _{ro} (feet)		0.4010
vapor space volume, V _v (cubic feet)		16910.58
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0008
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1669

Results	lb/year	lb/day
Standing Storage Loss	787	2.16
Working Loss	450	10.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,237	12.2

Summary Table	
Permit Number	S-1131-885-32
Facility Tank I.D.	--
Tank capacity (bbl)	5,000
Tank diameter (ft)	38.5
Tank shell height (ft)	24.125
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	2,000
Maximum Annual Fluid Throughput (bbl/year)	90,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	12.2
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,237

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1131-892-23
facility tank I.D.	--
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.05
liquid bulk storage temperature, Tb (°F)	200
is this a constant-level tank? {yes, no}	no
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)	38.5
capacity of tank (bbl)	5,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	24.125
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}	4
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)		2,000
maximum annual fluid throughput (bbl)	90,000	90,000
-----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)	155.0	4.2359
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	144.2	3.2442
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	149.6	3.6916
roof outage, H _{ro} (feet)		0.4010
vapor space volume, V _v (cubic feet)		16910.58
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0008
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1669

Results	lb/year	lb/day
Standing Storage Loss	787	2.16
Working Loss	450	10.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,237	12.2

Summary Table	
Permit Number	S-1131-892-23
Facility Tank I.D.	--
Tank capacity (bbl)	5,000
Tank diameter (ft)	38.5
Tank shell height (ft)	24.125
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	2,000
Maximum Annual Fluid Throughput (bbl/year)	90,000
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N/A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	12.2
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,237

FACILITY NAME
Project # S-1182021 , Permit Unit # S-1131-1187 thru '-1189

EPA Protocol for Equipment Leak Emission Estimate
Table 2-4. Oil and Gas Production Operations
Average Emission Factors

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 100 %
 Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

Equipment Type	Service	Screening Value EF - TOC (kg/hr/source)	Component Count	VOC emissions (lb/day)
Valves	Gas	4.5E-03	1	0.24
	Heavy Oil	8.4E-06	0	0.00
	Light Oil	2.5E-03	0	0.00
Pump Seals	Water/Oil	9.8E-05	0	0.00
	Gas	2.4E-03	0	0.00
	Heavy Oil	N/A	0	N/A
Others	Light Oil	1.3E-02	0	0.00
	Water/Oil	2.4E-05	0	0.00
	Gas	8.8E-03	5	2.33
Connectors	Heavy Oil	3.2E-05	0	0.00
	Light Oil	7.5E-03	0	0.00
	Water/Oil	1.4E-02	0	0.00
Flanges	Gas	2.0E-04	42	0.44
	Heavy Oil	7.5E-06	0	0.00
	Light Oil	2.1E-04	0	0.00
Open-ended Lines	Water/Oil	1.1E-04	0	0.00
	Gas	3.9E-04	20	0.41
	Heavy Oil	3.9E-07	0	0.00
Open-ended Lines	Light Oil	1.1E-04	0	0.00
	Water/Oil	2.9E-06	0	0.00
	Gas	2.0E-03	1	0.11
Open-ended Lines	Heavy Oil	1.4E-04	0	0.00
	Light Oil	1.4E-03	0	0.00
	Water/Oil	2.5E-04	0	0.00

Total VOC Emissions = 3.5 lb/day

APPENDIX F
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 for VOC only can be calculated as follows:

S-1131-885

$$\begin{aligned} \text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 1,237 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 309 \text{ lb PM}_{10}/\text{qtr} \end{aligned}$$

$$\begin{aligned} \text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 10,644 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 2,661 \text{ lb PM}_{10}/\text{qtr} \end{aligned}$$

Quarterly VOC NEC [QNEC]			
Permit	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
S-1131-598-52	10,330	10,330	0
S-1131-885-32	2,661	309	-2,352
S-1131-892-32	483	309	-174
S-1131-1187-1	322	0	322
S-1131-1188-1	322	0	322
S-1131-1189-1	322	0	322

APPENDIX G

Emissions Profiles

Permit #: S-1131-598-52 **Last Updated**
 Facility: CHEVRON USA INC 07/16/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	41318.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	113.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1131-885-32 **Last Updated**
 Facility: CHEVRON USA INC 07/05/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	10669.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	29.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1131-892-23	Last Updated
Facility: CHEVRON USA INC	07/05/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	1935.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	5.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1131-1187-1	Last Updated
Facility: CHEVRON USA INC	07/11/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	1288.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	3.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	322.0
Q2:	0.0	0.0	0.0	0.0	322.0
Q3:	0.0	0.0	0.0	0.0	322.0
Q4:	0.0	0.0	0.0	0.0	322.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1131-1188-1 **Last Updated**
 Facility: CHEVRON USA INC 07/11/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	1288.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	3.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	322.0
Q2:	0.0	0.0	0.0	0.0	322.0
Q3:	0.0	0.0	0.0	0.0	322.0
Q4:	0.0	0.0	0.0	0.0	322.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1131-1189-1 **Last Updated**
 Facility: CHEVRON USA INC 07/11/2018 KLEVANND

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	1288.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	3.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	322.0
Q2:	0.0	0.0	0.0	0.0	322.0
Q3:	0.0	0.0	0.0	0.0	322.0
Q4:	0.0	0.0	0.0	0.0	322.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

APPENDIX H

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 USA, Inc		FACILITY ID: S-1131
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility		
2. Owner's Name: Chevron USA, 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:

Joseph McClellan
Signature of Responsible Official

7/16/18
Date

Joseph McClellan
Name of Responsible Official (please print)

Operations Supervisor
Title of Responsible Official (please print)