



FEB 28 2013

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-1703
Project # S-1123227**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Macpherson Oil Company, located at within their Heavy Oil Central Stationary Source S-1703, which has been issued a Title V permit. Macpherson Oil Company is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Macpherson Oil Company proposes to add voluntary cleaning provisions to crude oil storage tanks S-1703-16, '-17, '-18, '-19, '-20, '-21, '-22, '-23, '-24, '-25, and '-26, and allow the flare S-1703-27 to incinerate gas collected by the shared TVR system listed on permit unit S-1703-16, and modify permit unit S-1703-134 to allow all produced fluids from the wells to be routed to the controlled fixed roof tanks S-1703-16, '-17, '-18, '-19, '-20, '-21, '-22, '-23, '-24, '-25, and '-26.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, '-26-6, '-27-6 and '-134-6 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
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Mr. Gerardo C. Rios
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Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Warner", is written over the typed name.

David Warner
Director of Permit Services

Enclosures

cc: William Jones, Permit Services



FEB 28 2013

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

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-1703
Project # S-1123227**

Dear Mr. Butler:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Macpherson Oil Company proposes to add voluntary cleaning provisions to crude oil storage tanks S-1703-16, '-17, '-18, '-19, '-20, '-21, '-22, '-23, '-24, '-25, and '-26, and allow the flare S-1703-27 to incinerate gas collected by the shared TVR system listed on permit unit S-1703-16, and modify permit unit S-1703-134 to allow all produced fluids from the wells to be routed to the controlled fixed roof tanks S-1703-16, '-17, '-18, '-19, '-20, '-21, '-22, '-23, '-24, '-25, and '-26.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. 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,



David Warner
Director of Permit Services

Enclosures
cc: William Jones, Permit Services

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Add Voluntary Inspection and Maintenance Program Conditions

Facility Name: Macpherson Oil Company
Mailing Address: P.O. Box 5368
Bakersfield, CA 93388
Contact Person: Jody Butler
Telephone: 661-393-3204 ext. #103
Fax: 661-393-8065
E-Mail: Jody_butler@macphersonoil.com
Application #(s): S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, '-26-6, '-27-6 and '-134-6
Project #: S-1123227
Deemed Complete: 9/26/12

Date: 1/9/13
Engineer: William Jones
Lead Engineer: Steve Leonard

 2/11/13

I. Proposal

Macpherson Oil Company (MOC) is applying for an Authority to Construct (ATC) permit for the following modification:

- Addition of voluntary cleaning provisions to crude oil storage tanks S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, and '26-6.
- Revise the unit description of permit S-1703-25 to 5,000 bbl.
- Move all TVR specific requirements on permit units S-1703-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, '26-6, '-27-6 and '-134-6 to the "low order tank" permit S-1703-16.
- Modify description to reference the shared TVR system listed on permit unit S-1703-16.
- Modify equipment description to specify the flare incinerates gas collected by the shared TVR system listed on permit unit S-1703-16.
- Modify permit unit S-1703-134-4; remove casing gas collection system and operate with closed casing vents to allow all produced fluids from the wells to go into the fixed roof tanks served by vapor control.
- Modify permit unit S-1703-134-4; Delete condition 5 referencing to condensate vessel, (vessel has been removed).

In addition, MOC is currently under contract with their electrical power supplier to allow the supplier to curtail power to the field during power flex alerts. During these curtailment events the entire facility is powered down. Consequently, the vapor control units are also powered down, resulting in a violation of the their current permit conditions as pertaining to the vapor control requirements. However, since the subject tanks contain crude oil with a TVP less than 0.5 psi (**See Appendix E for gas analysis**), the mentioned tanks are not subject to the vapor control requirement of section 5 of District Rule 4623.

During curtailment, the pumps, steam generators, and oil throughputs to the tanks cease, resulting in a negligible decrease in emissions compared to full operation.

The following conditions will remain or be added to the permits in order to allow the vapor recovery unit to be shutdown, or inoperable during power curtailment events:

- The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201]
- The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201]
- The permittee shall maintain a written log of the date and duration of each power curtailment event. [District Rule 2201]

MOC received their Title V Permit on May 11, 2001. 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. Macpherson Oil Company (MOC) must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4311	Flares (6/18/09)
Rule 4401	Steam-Enhanced Crude Oil Production Wells (6/16/11)
Rule 4623	Storage of Organic Liquids (5/19/05)
Rule 4801	Sulfure Compunds
40 CFR 60	Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
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 tank is located in Macpherson's Central Kern County Heavy Oil Stationary Source in the SE/4 of Section 20, Township 27S, Range 28E. 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

Macpherson Oil Company operates a crude oil production facility which uses thermally enhanced oil recovery techniques to facilitate extraction of heavy crude oil. Crude oil production tank batteries receive produced fluids from enhanced oil recovery operations. There, facilities separate the produced water from the crude oil prior to shipment. Produced water is piped to a permitted disposal well or produced water tank and the dehydrated oil is pumped into a sales line for delivery to a refining operation. A slop oil tank is used to collect sand dumps from the FWKO vessel and the discharge of the sample drains from the storage tanks.

V. Equipment Listing

Pre-Project Equipment Description:

- S-1703-16-5: 21,000 GALLON FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THRU '-26.
- S-1703-17-3: 21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26:
- S-1703-18-3: 21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26:
- S-1703-19-3: 210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-20-3: 210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-21-3: 126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-22-3: 126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:

- S-1703-23-3: 84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-24-3: 84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-25-3: 210,000 GALLON (2,000 BBL) FIXED ROOF WASTE WATER TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '-26:
- S-1703-26-3: 4,200 GALLON (100 BBL) FIXED ROOF SKIM OIL TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26:
- S-1703-27-4: 10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE:
- S-1703-134-4: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE:

Proposed Modification:

- S-1703-16-8: MODIFICATION OF 500 BBL GALLON FIXED ROOF GAUGE TANK **T01-WMP** VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 **THROUGH** '-26; REMOVE REFERENCES TO TANK DEHY BOILER AND FIELD ELECTRIC GENERATORS, CORRECT REFERENCES TO OTHER TANKS SERVED BY THE TVR SYSTEM, LIST FLARE S-1703-27 IN EQUIPMENT DESCRIPTION, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-17-6: MODIFICATION OF 500 BBL FIXED ROOF GAUGE TANK **T02-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-18-6: MODIFICATION OF 500 BBL FIXED ROOF GAUGE TANK **T03-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR

CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

- S-1703-19-6: MODIFICATION OF 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK **T04-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-20-6: MODIFICATION OF 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK **T05-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-21-6: MODIFICATION OF 3,000 BBL FIXED ROOF WASH TANK **T06-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-22-6: MODIFICATION OF 3,000 BBL FIXED ROOF WASH TANK **T07-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-23-6: MODIFICATION OF 2,000 BBL FIXED ROOF STOCK TANK **T08-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**

- S-1703-24-6: MODIFICATION OF 2,000 BBL FIXED ROOF STOCK TANK **T09-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-25-6: MODIFICATION OF 2,000 BBL FIXED ROOF WASTE WATER TANK **T10-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-26-6: MODIFICATION OF 100 BBL FIXED ROOF SKIM OIL TANK **T11-WMP** VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. **(WEST MT POSO UNIT TANK BATTERY)**
- S-1703-27-6: MODIFICATION OF 10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE: MODIFY EQUIPMENT DESCRIPTION TO INDICATE THAT THE FLARE WILL BE USED TO INCINERATE GAS COLLECTED BY THE TVR SYSTEM LISTED ON S-1703-16 **(WEST MT POSO UNIT)**
- S-1703-134-6: MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE: REMOVE GAS CASING COLLECTION SYSTEM, ALLOW THE SYSTEM TO OPERATE WITH CLOSED CASING VENTS, REMOVE REFERENCES TO CONTROL DEVICE AND REMOVE CONDENSATE VESSEL. **(WEST MT POSO UNIT TANK BATTERY)**

Post Project Equipment Description:

- S-1703-16-8: 500 BBL GALLON FIXED ROOF GAUGE **TANK T01-WMP** VENTING TO VAPOR CONTROL SYSTEM SERVING TANKS S-1703-16 THROUGH '26, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, ROUTED TO FLARE S-1703-27 **(WEST MT POSO UNIT TANK BATTERY)**

- S-1703-17-6: 500 BBL FIXED ROOF GAUGE TANK **T02-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-18-6: 500 BBL FIXED ROOF GAUGE TANK **T03-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-19-6: 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK **T04-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-20-6: 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK **T05-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-21-6: 3,000 BBL FIXED ROOF WASH TANK **T06-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-22-6: 3,000 BBL FIXED ROOF WASH TANK **T07-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-23-6: 2,000 BBL FIXED ROOF STOCK TANK **T08-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-24-6: 2,000 BBL FIXED ROOF STOCK TANK **T09-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-25-6: 2,000 BBL FIXED ROOF WASTE WATER TANK **T10-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-26-6: 100 BBL FIXED ROOF SKIM OIL TANK **T11-WMP** VENTING TO VAPOR CONTROL SYSTEM LISTED ON S-1703-16 (**WEST MT POSO UNIT TANK BATTERY**)
- S-1703-27-6: 10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE RECEIVING COLLECTED VAPORS FROM S-1703-16 (**WEST MT POSO UNIT**)
- S-1703-134-6: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, OPERATING WITH CLOSED CASING VENTS (**WEST MT POSO UNIT TANK BATTERY**)

VI. Emission Control Technology Evaluation

The Section 20 tanks (S-1703-16, '-17, '-18, '-19, '-20, '-21, '-22, '-23, '-24, 25- and '-26) are served by a shared vapor control system which routes uncondensed vapors to the 10.0 MMBTU/HR KALDAIR Inc., MARDAN m-200 smokeless flare permitted as S-1703-27.

VII. General Calculations

A. Assumptions

- The VOC content of the vapors in the vapor control system does not exceed 10% by weight.
- Per District Policy SSP-2015, Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCOMI Facilities, VOC emissions from components at oil and gas production operations handling vapors with a VOC content of less than 10% are considered negligible and not assessed.
- Facility operates 24 hr. /day, 365 days/yr.
- The project will not cause an increase in NO_x, PM₁₀, CO, VOC, or SO_x emissions from any individual emissions unit, or for the stationary source.
- Only fugitive VOC emissions are emitted from tanks served by vapor control systems
- During voluntary power curtailment events the crude oil throughput is reduced to 0.0 bbl. /hr.
- All Vapor control systems will be disabled during voluntary power curtailment events

B. Emission Factors

For the tank served by a vapor control system, fugitive emissions are calculated pursuant to District Policy SSP 2015, Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCOMI Facilities. District Policy SSP 2015 states that VOC emissions are not assessed for components handling produced fluids with an API gravity less than 30°, or for components handling fluid streams with a VOC content of less than 10% by weight. Since this is a heavy oil facility, and since the VOC content of the vapor control gas is less than 10% by weight, VOC emissions will not be assessed from the tank, when the vapor control system is operating. During curtailments, small amounts of breathing losses can occur as shown below:

Energy Curtailment Emissions		
Permit	Tank Size (bbl.)	Emissions per Event (lbs.)
S-1703-16-5	500	0.02
S-1703-17-3	500	0.02
S-1703-18-3	500	0.02
S-1703-19-3	5000	0.12
S-1703-20-3	5000	0.12
S-1703-21-3	3000	0.2
S-1703-22-3	3000	0.2
S-1703-23-3	2000	0.09

Energy Curtailment Emissions		
Permit	Tank Size (bbl.)	Emissions per Event (lbs.)
S-1703-24-3	2000	0.09
S-1703-25-3	5000	0.12
S-1703-26-3	100	0.01
Total emissions per 5 hour event		1.01
Total emissions per year (50 hrs. per year) (lbs.)		10.1

Since the uncontrolled emissions during a power curtailment are less than 0.5 lbs./day for each individual unit the uncontrolled emissions are rounded to zero for NSR purposes. Curtailments are expected to be brief and resultant breathing losses are negligible.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The potential to emit for the operation is calculated as follows, and summarized in the table below:

Pre-Project Potential to Emit [PE1]					
	NOx (lb./day)	SOx (lb./day)	PM10 (lb./day)	CO (lb./day)	VOC (lb./day)
S-1703-16-5	0	0	0	0	0
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	42	0	0.7	10.6	1
S-1703-134-4	0	0	0	0	18.5

Pre-Project Potential to Emit [PE1]					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
S-1703-16-5	0	0	0	0	0
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0

Pre-Project Potential to Emit [PE1]					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	15,330	0	256	3,869	365
S-1703-134-4	0	0	0	0	6,745

2. Post Project Potential to Emit (PE2)

Since there are no proposed modifications to the emission factors, throughput, or operating schedule, emissions will not change. Therefore, Post-Project Potential to Emit (PE2) is:

$$PE2 = PE1$$

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

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. However, for the purposes of determining major source status, the SSPE2 shall not include 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.”

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

6. Baseline Emissions (BE)

The BE calculation (in lbs/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.

As shown in Section VII.C.5 above, the facility is a Major Source for VOC pollutant. However, the units included in this project are considered Clean Emissions units.

Therefore BE=PE1.

As calculated in Section VII.C.1 above, PE1 is summarized in the following table:

Pre-Project Potential to Emit [PE1]					
	NOx (lb./day)	SOx (lb./day)	PM10 (lb./day)	CO (lb./day)	VOC (lb./day)
S-1703-16-5	0	0	0	0	0
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	42	0	0.7	10.6	1
S-1703-134-4	0	0	0	0	18.5

Pre-Project Potential to Emit [PE1]					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
S-1703-16-5	0	0	0	0	0

Pre-Project Potential to Emit [PE1]					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	15,330	0	256	3,869	365
S-1703-134-4	0	0	0	0	6,745

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 source is not included in the 27 specific source categories specified in 40 CFR 51.165, increases in fugitive emissions are not included in the SB 288 Major Modification calculation.

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

SB 288 Major Modification Thresholds					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
S-1703-16-5	0	0	0	0	0
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	15,330	0	256	3,869	365
S-1703-134-4	0	0	0	0	0*

SB 288 Major Modification Thresholds					
	NOx (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	CO (lb./yr.)	VOC (lb./yr.)
Threshold (lb./year)	50,000	80,000	30,000	100,000	50,000
SB 288 Major Modification Calculation required?	No	No	No	No	No

*Fugitive emissions only

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 27 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.

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

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases					
	NOx* (lb./yr.)	SOx (lb./yr.)	PM10 (lb./yr.)	PM2.5 (lb./yr.)	VOC* (lb./yr.)
S-1703-16-5	0	0	0	0	0
S-1703-17-3	0	0	0	0	0
S-1703-18-3	0	0	0	0	0
S-1703-19-3	0	0	0	0	0
S-1703-20-3	0	0	0	0	0
S-1703-21-3	0	0	0	0	0
S-1703-22-3	0	0	0	0	0
S-1703-23-3	0	0	0	0	0
S-1703-24-3	0	0	0	0	0
S-1703-25-3	0	0	0	0	0
S-1703-26-3	0	0	0	0	0
S-1703-27-4	0	0	0	0	0
S-1703-134-4	0	0	0	0	0
Threshold (lb./year)	0	0	30,000	100,000	50,000
SB 288 Major Modification Calculation required?	No	No	No	No	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 none of the Federal Major Modification Thresholds are being surpassed with this project, this project does not constitute a Federal Major Modification and no further analysis is required.

9. 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 D**.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

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

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

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

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

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

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)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

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

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

For the existing tank and vapor control system PE2 = PE1, EF2 = EF1, and only VOC is emitted.

S-1703-16-8

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-17-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-18-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-19-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-20-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-21-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day}\end{aligned}$$

S-1703-22-6

$$\begin{aligned}\text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0\end{aligned}$$

$$= 0.0 \text{ lb.-VOC/day}$$

S-1703-23-6

$$\begin{aligned} \text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

S-1703-24-6

$$\begin{aligned} \text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

S-1703-25-6

$$\begin{aligned} \text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

S-1703-26-6

$$\begin{aligned} \text{AIPE} &= 0.0 - (0.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

S-1703-27-6

$$\begin{aligned} \text{AIPE} &= 1.0 - (1.0 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

S-1703-134-6

$$\begin{aligned} \text{AIPE} &= 18.5 - (18.5 \times (1/1)) \\ &= 0.0 - 0.0 \\ &= 0.0 \text{ lb.-VOC/day} \end{aligned}$$

As demonstrated above, the AIPE is not greater than 2.0 lb. /day for VOC emissions for any tank. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 and/or Federal Major Modification for any criteria pollutant emissions. Therefore BACT is not triggered for any pollutant.

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb./year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	>20,000	<54,750	>29,200	<200,000	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	Yes	No	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for NO_x 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 NO_x 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 these units are equal to the PE1 since the units are Clean Emissions Units.

There are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

$$\text{Offsets Required (lb. /year)} = (\text{PE2} - \text{BE}) \times \text{DOR}$$

S-1703-16-8 (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-17-6, (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-18-6, (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-19-6, (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-20-6, (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-21-6, (for all pollutants):

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year} \end{aligned}$$

S-1703-22-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-23-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-24-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-25-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-26-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-27-6, (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

S-1703-134-6 (for all pollutants):

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (0 - 0) \times \text{DOR} \\ &= 0 \times \text{DOR} \\ &= 0 \text{ lb. /year}\end{aligned}$$

As demonstrated in the calculation above, the amount of offsets for all pollutants 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, and/or
- d. Any project with an SSIPE of greater than 20,000 lb./year for any pollutant.

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 VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb. /day

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

c. Offset Threshold

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	>20,000	20,000 lb./year	No
SO _x	<54,750	<54,750	54,750 lb./year	No
PM ₁₀	>29,200	>29,200	29,200 lb./year	No
CO	<200,000	<200,000	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. Since there is no increase in emissions associated with this project, SSIPE=0. Therefore public noticing for SSIPE purposes is not required.

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)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, '-26-6, '-27-6, '-134-6

There are no additional nor modified DEL conditions proposed for this unit.

E. Compliance Assurance

1. Source Testing

To maintain the exemption from fugitive emissions (VOC content of the vapors in the tank will be below 10% by weight) regular testing will be required. The following condition will remain on the permit to ensure continued compliance:

- VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
- Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1703-16,-17,-18,-19,-20,-21,-22,-23,-24,-25, and -26 and components associated with emergency flare. [District Rule 2201]

2. Monitoring

VOC content of the vapors in the tank will be below 10% by weight. Therefore no monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

The permittee will be required to keep records verifying that the vapors stored in the tank remain below 10% by weight of VOC. The following condition will remain on the permit to ensure continued compliance:

- Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201]
- All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

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, these modifications:

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.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: *“the addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial”*.

No newly constructed, reconstructed or modified affected facilities are proposed in this project. Therefore, the requirements of this Rule do not apply to this proposal.

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 storage tank operations.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 or 20% opacity. This unit is currently required to be in compliance with the requirements of this Rule. There are no changes expected that would affect this unit's emissions. Therefore, continued compliance is expected and the following condition will be placed on the permit:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

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.

Rule 4311 Flares

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

this rule are applicable to operations involving the use of flares. Therefore the requirements of this rule are applicable to this project.

The flare associated with this project is currently in compliance with this rule. There are no proposed changes in the operation or maintenance of this flare associated with this project. Continued compliance is expected.

Rule 4401 Steam-Enhanced Crude Oil Production Wells

The purpose of this rule is to limit the Volatile Organic Compound (VOC) emissions from steam-enhanced crude oil production wells. This rule is applicable to all steam-enhanced crude oil production wells and any associated VOC collection and control systems.

Per section 4.7 The requirements of Section 5.4.1 through Section 5.4.7 of this rule shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight or less (10 wt.%), as determined by the test methods in Section 6.3.4. This facility is currently in compliance with the requirements of this rule. Continued compliance is expected.

Rule 4401 requires VOC emissions from well vents be controlled by 99%. The well vent vapor control systems are assessed 99% control efficiency. Closing the casing vents and routing produced crude oil and any entrained or free casing gas directly to crude oil producing tanks which are vapor tight and employ a VOC vapor control system with a 99% VOC capture and destruction efficiency maintains compliance with this rule and results in no increases in VOC emissions from the source. No changes in the efficiency of the control system or emissions are expected. Compliance is expected.

Rule 4623 Storage of Organic Liquids

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

This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

The applicant has requested to include the mentioned tanks in the Voluntary Tank Interior Cleaning Program, therefore the following Organic Liquid Storage Tanks – Cleaning Requirements will be added in accord with District policy SSP 2210. All the storage tanks are limited to storing liquids with a TVP < 0.5 psia, thereby exempting them from the section 5.0 requirements of this rule. Therefore, per policy SSP 2210, tank cleaning conditions reference District Rule 2080.

S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, and '-26-6

- 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]

- 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]
- 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]
- 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]
- This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 2080]
- 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]
- 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]

Per Section 5.7 of Rule 4623 inclusion in the Voluntary Tank Interior Cleaning Program (I&M Program) also requires enrollment into the I&M Program, and compliance with the requirements outlined in that section. The storage tanks are not subject to section 5.7 and do not request to participate in the voluntary I&M program.

Rule 4801 Sulfur Compounds

Rule 4801 limits sulfur compound emissions to 0.2% (2,000 ppm) dry volume. The equipment is currently in compliance with the requirements of this rule. Continued compliance 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.

40 CFR 60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Per 40 CFR 60.2 a modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. Since there is no increase in emissions associated with this project, this project is not considered a modification subject to the requirements of 40 CFR 60 subpart Kb.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is located within 1,000 feet of a school. However, pursuant to California Health and Safety Code 42301.6, since this project will not result in an increase in emissions, 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.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District has

determined that potential emission increases would have a less than significant health impact on sensitive receptors.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCs S-1703-16-8, '-17-6, '-18-6, '-19-6, '-20-6, '-21-6, '-22-6, '-23-6, '-24-6, '-25-6, '-26-6, '-27-6, and '-134-6 subject to the permit conditions on the attached draft ATC in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1703-16-8	3020-05-C	21,000 gallons	\$135.00
S-1703-17-6	3020-05-C	21,000 gallons	\$135.00
S-1703-18-6	3020-05-C	21,000 gallons	\$135.00

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1703-19-6	3020-05-E	210,000 gallons	\$246.00
S-1703-20-6	3020-05-E	210,000 gallons	\$246.00
S-1703-21-6	3020-05-E	210,000 gallons	\$246.00
S-1703-22-6	3020-05-E	126,000 gallons	\$246.00
S-1703-23-6	3020-05-D	84,000 gallons	\$186.00
S-1703-24-6	3020-05-D	84,000 gallons	\$186.00
S-1703-25-6	3020-05-E	210,000 gallons	\$246.00
S-1703-26-6	3020-05-A	4,200 gallons	\$75.00
S-1703-27-6	3020-05-G	10 MMBtu/hr.	\$815.00
S-1703-134-6	3020-05-A	6 wells	\$56.04

Appendixes

- A: Draft ATC
- B: Current PTO(s) & Base Document(s)
- C: Compliance Certification
- D: Quarterly Net Emissions Change (QNEC)
- E. Gas analysis

**APPENDIX A:
Draft ATC**

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-16-8

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: 20 TOWNSHIP: 27S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL GALLON FIXED ROOF GAUGE TANK T01-WMP VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THROUGH '-26; REMOVE REFERENCES TO TANK DEHY BOILER AND FIELD ELECTRIC GENERATORS, CORRECT REFERENCES TO OTHER TANKS SERVED BY THE TVR SYSTEM, LIST FLARE S-1703-27 IN EQUIPMENT DESCRIPTION, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-1703-16-8 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

4. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201] Federally Enforceable Through Title V Permit
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
6. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall 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 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
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. 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
12. 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
13. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1703-16,-17,-18,-19,-20,-21,-22,-23,-24,-25, and -26 and components associated with emergency flare. [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. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

16. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
17. All VOC vapors shall be compressed and delivered to flare S-1703-27. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Vapor control system compressor shall activate before tanks internal pressure exceeds pressure relief valve setting. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
22. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
23. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
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. 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 maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-17-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL FIXED ROOF GAUGE TANK T02-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-1703-17-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. 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
23. 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
24. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
25. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-18-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL FIXED ROOF GAUGE TANK T03-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-1703-18-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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25. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-19-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK T04-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-1703-19-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. 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
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CONDITIONS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-20-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: 20 TOWNSHIP: 27S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK T05-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
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CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-1703-20-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

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10. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
15. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. 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
23. 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
24. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
25. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-21-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3,000 BBL FIXED ROOF WASH TANK T06-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '-26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITIONS, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-1703-21-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. 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
7. 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
8. 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
9. 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
10. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

17. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
19. 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
20. 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
21. 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
22. 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
23. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
24. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-22-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3,000 BBL FIXED ROOF WASH TANK T07-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '16: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITION, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director YAPCO

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DAVID WARNER, Director of Permit Services

S-1703-22-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. 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
7. 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
8. 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
9. 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
10. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
15. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. 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
23. 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
24. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
25. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1703-23-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2,000 BBL FIXED ROOF STOCK TANK T08-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITION, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-1703-23-6 : Feb 25 2013 2:43PM -- LEONARDS : Joint Inspection NOT Required

6. 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
7. 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
8. 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
9. 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
10. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Only two weir boxes shall be in use at any one time. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Produced water shall be piped to S-91 water treatment facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
15. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. 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
23. 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
24. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
25. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: S-1703-24-6

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

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

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2,000 BBL FIXED ROOF STOCK TANK T09-WMP VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THROUGH '26: MODIFY EQUIPMENT DESCRIPTION TO SHOW TANK VENTED TO TVR SYSTEM LISTED ON S-1703-16, MOVE TVR REQUIREMENTS/CONDITIONS TO S-1703-16, ADD TANK CLEANING CONDITION, AND ALLOW FOR THE SHUTDOWN OF THE VAPOR CONTROL SYSTEM DURING POWER CURTAILMENT EVENTS. (WEST MT POSO UNIT TANK BATTERY)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520] Federally Enforceable Through Title V Permit
3. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times with the exception of power curtailment events. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
5. VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

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DAVID WARNER, Director of Permit Services

S-1703-24-6 : Feb 25 2013 2:43PM - LEONARDS : Joint Inspection NOT Required

6. 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
7. 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
8. 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
9. 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
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24. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
25. The permittee shall maintain a written log of the date and duration of each power curtailment event [District Rule 2201] Federally Enforceable Through Title V Permit
26. The permittee shall keep written documentation from the power supplier indicating the date, and duration of the curtailment in addition to the beginning and end times. [District Rule 2201] Federally Enforceable Through Title V Permit
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