



OCT 1 0 2018

Ms. Amy Roth E&B Natural Resources 3000 James Road Bakersfield, CA 93308

Proposed ATC / Certificate of Conformity (Significant Mod)

Facility Number: S-1624 Project Number: S-1183490

Dear Ms. Roth:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. E&B Natural Resources (E&B) is applying to install two oilfield tanks.

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

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

Thank you for your cooperation in this matter.

Sincerely.

rnaud Marjollet

Director of Permit Services

Enclosures

CC:

Tung Le, CARB (w/enclosure) via email

CC:

Gerardo C. Rios, EPA (w/enclosure) via email

Samir Sheikh Executive Director/Air Pollution Control Officer

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Installation of Fixed Roof Tanks - Oil Field Production

Facility Name: E&B Natural Resources Date: September 14, 2018

Contact Person: Amy Roth Engineer: Steve Davidson

Mailing Address: 3000 James Road Lead Engineer: Richard Karrs

Bakersfield, CA 93308

Telephone: (424)903-7257

Application #(s): S-1624-296-2, '-336-0, '-337-0

Project #: S-1183490

Deemed Complete: September 7, 2018

I. Proposal

E&B Natural Resources (E&B) is applying for an Authority to Construct (ATC) permits for the installation of one 2000 BBL stock tank (S-1624-336-0) at the Anza tank battery and one 1000 BBL stock tank (S-1624-337-0) Midway Premier lease. Tank S-1624-336-0 well be connected to the existing vapor control system listed on tank S-1624-296. Tank S-1624-337-0 is equipped with is a pressure/vacuum relief device and is replacing a 250 BBL fixed roof, stock oil tank (S-1624-58).

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

ATC S-1624-298 has

Current permits S-1624-58, and '-296 are included in Attachment I.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11) This rule applies to
	attainment pollutants only. The subject equipment only emits VOC. VOC
	is not an attainment pollutant; therefore, this rule does not apply.
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4623	Storage of Organic Liquids (05/19/05)
CH&SC 41700	Health Risk Assessment

CH&SC 42301.6 School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA) California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

Tank S-1624-336-0 will be installed at the Anza lease located in Section 32, Township 27S, Range 27E. Tank S-1624-337-0 will be installed at the Anza lease located in Section 32, Township 28S, Range 27E. The equipment will not be located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The tanks and vessels at the tank batteries receive production prior to custody transfer. Both tank will operate as stock tanks.

VOC emissions from tank S-1624-336-0 will be controlled by a shared VCS in accordance with the ATC S-1624-296-2 permit conditions. The VCS collects vapors from tanks and routes the uncondensed vapors to a VOC control device that reduces inlet VOC emissions by at least 95% by weight by permit condition.

VOC emissions from tank S-1624-337-0 will be controlled with a pressure-vacuum (PV) relief vent valve set to within 10% of the maximum allowable working pressure of the tank. The PV-valve will reduce VOC wind induced emissions from the tank vent.

A facility diagram is included as Attachment II.

V. Equipment Listing

Pre-Project Equipment Description:

S-1624-58-3: 250 BBL FIXED ROOF PETROLEUM STORAGE TANK, MIDWAY

PREMIER #4

ATC S-1624-296-2: MODIFICATION OF 10,000 BBL FIXED ROOF CRUDE OIL WASH TANK

WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1624-297-0, '-298-0, '-299-0, AND '-300-0 (ANZA) (RENEWED ONE TIME - 11/22/17): CONNECT FWKO S-1624-310-0, AND TANKS S-1624-311-0, '-312-0, '-313-0, '-314-0, '-315-0, AND '-316-0 TO THE VAPOR CONTROL SYSTEM: CONNECT TANK S-1624-336 TO VAPOR

CONTROL AND REMOVE S-1624-298

Proposed Modification:

ATC S-1624-296-2: MODIFICATION OF 10,000 BBL FIXED ROOF CRUDE OIL WASH TANK

WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1624-297-

0, '-298-0, '-299-0, AND '-300-0 (ANZA) (RENEWED ONE TIME - 11/22/17): CONNECT FWKO S-1624-310-0, AND TANKS S-1624-311-0, '-312-0, '-313-0, '-314-0, '-315-0, AND '-316-0 TO THE VAPOR CONTROL SYSTEM: CONNECT TANK S-1624-336 TO VAPOR CONTROL AND REMOVE S-1624-298314-0, '-315-0, AND '-316-0 TO THE VAPOR CONTROL SYSTEM: CONNECT TANK S-1624-336 TO VAPOR CONTROL¹

¹Note: ATC S-1624-298 will not be implemted and will be removed fro the equipment description

ATC S-1624-336-0: 2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK VENTED TO

VAPOR CONTROL SYSTEM LISTED ON S-1624-296

ATC S-1624-337-0: 1000 BBL FIXED ROOF PETROLEUM STOCK TANK WITH PV VENT,

MIDWAY PREMIER #4

Permits to be canceled:

S-1624-58-3: 250 BBL FIXED ROOF PETROLEUM STORAGE TANK, MIDWAY

PREMIER #4

Post Project Equipment Description:

ATC S-1624-296-2: 10,000 BBL FIXED ROOF CRUDE OIL WASH TANK WITH VAPOR

CONTROL SYSTEM SERVING FWKO S-1624-310-0, AND TANKS S-1624-

297, '-299, '-300, '-311, '-312, '-313, '-314, '-315, '-316 AND '-336

ATC S-1624-336-0: 2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK VENTED TO

VAPOR CONTROL SYSTEM LISTED ON S-1624-296

ATC S-1624-337-0: 1000 BBL FIXED ROOF PETROLEUM STOCK TANK WITH PV VENT.

MIDWAY PREMIER #4

VI. Emission Control Technology Evaluation

S-1624-336-0:

The tank vapor control system collects vapors from the tanks, removes entrained liquid in knockout vessels and scrubber vessels, condenses gases in heat exchangers and routes the uncondensed vapors to (adjust as necessary) incineration devices or to DOGGR approved disposal wells. The efficiency of the vapor control system is at least 95%.

S-1624-337-0:

The tank will be equipped with a pressure-vacuum (PV) relief vent valve set to within 10% of the maximum allowable working pressure of the tank. The PV-valve will reduce VOC wind induced emissions from the tank vent.

VII. General Calculations

A. Assumptions

• Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.

S-1624-58-3 (to be canceled):

- Variable level operation with no flashing losses
- Crude oil throughput 250 bbl./day fluid (applicant)
- TVP = 0.5 psia
- Tank temperature, ambient, 100 F

S-1624-296:

 Modifying the tank vapor control system to connect a new tank to the system is not a NSR modification; therefore, tank S-1624-296 is not being modified and does not require calculations.

S-1624-336:

- Only fugitive VOCs emitted from components in gas service are calculated.
- Fugitive emissions from heavy oil liquid service components are negligible.
- Weight percentage in total organic compounds: 100%

S-1624-337:

- Variable level operation with no flashing losses Crude oil throughput 5 bbl./day fluid (applicant)
- ◆ TVP = 0.5 psia
- Tank temperature, ambient, 100 F

B. Emission Factors

Tank S-1624-336:

Pursuant to <u>California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities</u>, CAPCOA/CARB, February 1999, emissions in this project are calculated using the revised screening emissions factors. Please refer to the calculations in **Attachment III**.

Tanks S-1624-58 & '-337:

Both the daily and annual PE are calculated using the District's Microsoft Excel spreadsheets for Tank Emissions - Fixed Roof Crude Oil less than 26° API. The spreadsheet for tanks was developed using the equations for fixed-roof tanks from EPA AP-42, Chapter 7.1. See Calculations Attachment III

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Permit Unit	VOC - Daily PE1 (lb/day)	VOC - Annual PE2 (lb/Year)
S-1624-58-3*	13.0	4747

^{*}See emission calculations in Attachment III.

Since tanks S-1624-336-0 and '-337-0 are new emissions units, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

Since tank S-1624-58-3 ise are being canceled, PE2 = 0 for all pollutants.

Permit Unit*	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
S-1624-336-0	0.2	73
S-1624-337-0	2.1	781

^{*}See emission calculations in Attachment III.

Emissions profiles are included in Attachment IV.

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

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)

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

5. Major Source Determination

Rule 2201 Major Source Determination:

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

any ERCs associated with the stationary source

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

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

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

Since these are new emissions units, BE = PE1 = 0 for all pollutants.

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 28 specific source categories specified in 40 CFR 51.165, the, increases in fugitive emissions (S-1624-336) 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							
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?				
NO _x	0	50,000	No				
VOC	781	50,000	No				

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

8. Federal Major Modification

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions (S-1624-336) 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 new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

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									
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?						
VOC*	781	0	Yes						

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

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

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual

emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit multiplied by the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

/OC		Federal Offset Ratio	1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-1624-337-0	0 781		781
	N	let Emission Change (lb/year):	781
	Feder	ral Offset Quantity: (NEC * 1.5)	1172

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 shown below.

The QNEC shall be calculated as follows:

Quarterly NEC [QNEC]: S-1624-336-0									
Pollutant PE2 (lb/qtr) PE1 (lb/qtr) QNEC (lb/qtr									
NO _X	0	0	0						
SO _X	0	0	0						
PM ₁₀	0	0	0						
СО	0	0	0						
VOC	18	0	18						

Quarterly NEC [QNEC]: S-1624-337-0									
Pollutant PE2 (lb/qtr) PE1 (lb/qtr) QNEC (lb/q									
NO _X	0	0	0						
SO _X	0	0	0						
PM ₁₀	0	0	0						
СО	0	0	0						
VOC	195	0	195						

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

Modifying the tank vapor control system to connect a new tank to the system is not a NSR modification; therefore, tank S-1624-296 is not being modified and this Rule does not apply.

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.

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

The applicant is proposing to install new emissions tank with vapor control (S-1624-336-0) with a PE of 0.2 lb/day for VOC. Since the daily VOC emissions are less than 2.0 lbs/day, BACT will not be triggered for this unit.

The applicant is proposing to install new emissions tank with a PV vent (S-1624-337-0) with a PE of 2.1 lb/day for VOC. Since the daily VOC emissions are greater than 2.0 lbs/day, BACT will be triggered for this unit.

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

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

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

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore, BACT is not triggered.

^{*}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.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 above, this project does not constitute an SB 288 Major Modification for any pollutant. Therefore, BACT is not triggered for any pollutant.

As discussed in Sections VII.C.8 above, this project constitutes a Federal Major Modification for VOC (S-1624-337-0). Therefore, for tank S-1624-337-0, BACT is triggered for VOC.

2. BACT Guideline

BACT Guideline 7.3.1, applies to Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl tank capacity (see Attachment V

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

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

VOC: PV relief valve set to within 10% of maximum allowable pressure of the tank.

B. Offsets

1. Offset Applicability

As seen above, the SSPE2 is greater than the offset thresholds for VOC. Therefore, offset calculations will be required for this project.

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

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

The facility is proposing to replace two clean emissions unit; therefore BE = PE1. There are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

Offsets Required (lb/year) = ([PE2 - BE] + ICCE) x DOR

S-1624-58:

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PE2 (VOC) = 0 lb/year
BE (VOC) = 4747 lb/year
ICCE = 0 lb/year
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S-1624-336:

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PE2 (VOC) = 73 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year
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S-1624-337:

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PE2 (VOC) = 781 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year
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The project is a Federal Major Modification and therefore the correct offset ratio for NO_x and VOCs is 1.5:1.

Assuming an offset ratio of 1.5:1, the amount of NO_X ERCs that need to be withdrawn is:

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Offsets Required (lb/year) = ([-4747] + [73] + [781] + 0) \times 1.5
= 0 x 1.5
= 0 lb VOC/year
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C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

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

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

As demonstrated in Sections VII.C.7 8, this project does not constitute a SB 288 Major Modification; therefore, public noticing for SB 288 Major Modification purposes is not required.

As demonstrated in Sections VII.C.8, this project is a Federal Major Modification. Therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

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

c. Offset Threshold

Offset Thresholds										
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?						
NO _X	161,406	161,406	20,000 lb/year	No						
SO _X	65,642	65,642	54,750 lb/year	No						
PM ₁₀	77,098	77,098	29,200 lb/year	No						
СО	650,012	650,012	200,000 lb/year	No						
VOC	>> 20,000	>> 20,000	20,000 lb/year	No						

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds										
Pollutant	Project PE2 (lb/year)	Project 0PE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?					
NOx	0	0	0	20,000 lb/year	No					
SO _x	0	0	0	20,000 lb/year	No					
PM ₁₀	0	0	0	20,000 lb/year	No					
СО	0	0	0	20,000 lb/year	No					
VOC	854	4747	-3893	20,000 lb/year	No					

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

e. Title V Significant Permit Modification

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

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

S-1624-336

VOC fugitive emissions from the components in gas service on tank shall not exceed
 0.2 lb/day. [District Rule 2201] Y

S-1624-337

- Crude oil throughput shall not exceed 5 barrels per day based on a monthly average.
 [District Rule 2201] N
- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] N
- VOC emission rate from the tank shall not exceed 2.1 lb. /day. [District Rule 2201] N

E. Compliance Assurance

1. Source Testing

S-1624-336-0:

Pursuant to District Policy APR 1705, <u>Source Testing Frequency</u>, source testing is not required to demonstrate compliance with Rule 2201.

S-1624-337-0:

Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank within 60 days of startup and 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 Rules 2201 and 4623] N

2. Monitoring

S-1624-336-0

Fugitive emissions monitoring is required. The following permit conditions will ensure continued compliance:

 Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623]

S-1624-337-0:

No monitoring condition for Rule 2201 is required.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

Both Units:

 All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Y

S-1624-336-0:

 The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201]

S-1624-337-0:

 Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Section 4.14 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Attachment VI** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

G. Compliance Certification

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

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install a two oilfield stock tanks.

Since the project will provide equipment to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment." The project results in an increase of VOC emissions greater than the Federal Major Modification Threshold; therefore, this project is a Significant Modification to the Title V Permit

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/minor modification, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates the New Source Performance Standards from 40 CFR Part 60. 40 CFR Part 60, Subparts, K, Ka, Kb, and OOOO and could potentially apply to the storage tanks located at this facility.

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

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

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

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity.

As long as the equipment is properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions.

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment VI**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project. The results of the HRA are included in the table below.

A. RMR SUMMARY

	RMR Summary										
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?					
Unit 336-0 (Oil Tank)	0.00	0.00	0.00	8.83E-11	No	No					
Unit 337-0 (Oil Tank)	0.00	0.00	0.00	1.39E-10	No	No					
Project Totals	0.00	0.00	0.00	2.27E-10		N					
Facility Totals	>1	0.72	0.03	1.69E-05	1						

No special requirements are required.

Discussion of T-BACT

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

California Health & Safety Code 42301.6 (School Notice)

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

Rule 4623, Storage of Organic Liquids

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

S-1624-336-0:

The affected tanks are served by a vapor control system that has a control efficiency of at least 99%. This rule also requires the tank and tank vapor control system to be maintained in a leak-free condition. Leak-free is defined in the rule as no readings on a portable VOC detection device greater than 10,000 ppmv above background and no dripping of organic liquid at a rate of more than 3 drops per minute.

The tanks in this project are equipped with a vapor control system with a VOC control efficiency of 95%. No throughput/TVP records are required to be kept for fixed-roof tanks equipped with vapor control. Applicant has elected to participate in the voluntary tank preventive inspection, maintenance, and tank cleaning program. Tank cleaning will be conducted according to the requirements of Table 6.

S-1624-337-0:

According to Section 4.4, Tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.5 psia are exempt from all other requirements of the rule except for complying with the following provisions:

- 4.4.1 TVP and API Gravity Testing provisions pursuant to Section 6.2,
- 4.4.2 Recordkeeping provisions pursuant to Section 6.3.6,
- 4.4.3 Test Methods provisions pursuant to Section 6.4, and tanks exclusively receiving and or storing organic liquids with a TVP less than 0.5 psia are exempt from this Rule except for complying with Sections 6.2, 6.3.6, 6.4 and 7.2.

Therefore, the following conditions shall be placed on the ATC:

- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP)
 not greater than 0.5 psia under all storage conditions. [District Rules 2201 and 4623]
- Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank within 60 days of startup and 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 Rules 2201 and 4623] Y
- {2911} 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] Y
- {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be
 determined using the latest version of the Lawrence Berkeley National Laboratory
 "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil
 Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Y
- {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Y
- Permittee shall maintain records of TVP and API gravity 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] Y
- Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Y

 All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623] Y

Compliance with the requirements of this rule is expected.

California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

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

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

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

District CEQA Findings

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

In 2015, Kern County revised their Kern County Zoning Ordinance in regards to exploration, drilling and production of hydrocarbon resources projects. Kern County, as the lead agency, is the agency that will enforce the mitigation measures identified the EIR, including the mitigation requirements of the Oil and Gas ERA. As a responsible agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CCR §15096). The District has reviewed the EIR prepared by Kern County, the Lead Agency for the project, and finds it to be adequate. The District also prepared a full findings document. The full findings document, California Environmental Quality Act (CEQA) Statement of Findings for the Kern County Zoning Ordinance EIR contains the details of the District's findings regarding the Project. The District's implementation of the Kern Zoning Ordinance and its EIR applies to ATC applications received for any new/modified equipment used in oil/gas production in Kern County, including new wells. The full findings applies to the Project and the Project's related activity equipment(s) is covered under the Kern Zoning Ordinance. To reduce project related impacts on air quality, the District evaluates emission controls for the project such as Best Available Control Technology (BACT) under District Rule 2201 (New and Modified Stationary Source Review). In addition, the District is requiring the applicant to surrender emission reduction credits (ERC) for stationary source emissions above the offset threshold.

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

Indemnification Agreement/Letter of Credit Determination

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

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

Attachment I Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1624-58-3

EXPIRATION DATE: 06/30/2021

SECTION: 32 TOWNSHIP: 278 RANGE: 27E

EQUIPMENT DESCRIPTION:

250 BBL FIXED ROOF PETROLEUM STORAGE TANK, MIDWAY PREMIER #4

PERMIT UNIT REQUIREMENTS

- 1. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
- 2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 3. 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
- 4. 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
- 5. 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
- 6. 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
- 7. 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
- 8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
- 9. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

Facility Name: E&B NATURAL RESOURCES MGMT

Location: HEAVY OIL CENTRAL, CA 5-1624-56-9: Sup 21 2018 8-00AM -- DAVIDSOS





AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-296-1 ISSUANCE DATE: 02/28/2018

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

2447 PACIFIC COAST HWY, STE 200

HERMOSA BEACH, CA 90245

LOCATION:

MAILING ADDRESS:

HEAVY OIL CENTRAL

CA

SECTION: NW04 TOWNSHIP: 28S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10,000 BBL FIXED ROOF CRUDE OIL WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1624-297-0, '-298-0, '-299-0, AND '-300-0 (ANZA) (RENEWED ONE TIME - 11/22/17): CONNECT FWKO S-1624-310-0, AND TANKS S-1624-311-0, '-312-0, '-313-0, '-314-0, '-315-0, AND '-316-0 TO THE VAPOR CONTROL SYSTEM

CONDITIONS

- 1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520, [District Rule 2520] Federally Enforceable Through Title V Permit
- 2. ATC S-1624-296-0 shall be implemented prior to or concurrent with this ATC. [District Rule 2201]
- 3. ATCs S-1624-310-0, '-311-0, '-312-0, '-313-0, '-314-0, '-315-0, and '-316-0 shall be implemented concurrent with this ATC. [District Rule 2201]
- 4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank and routes the vapors to the field gas line which supports various combustion devices. The vapor control system shall be APCO-approved and maintained in leak-free condition. Vapors shall be discharged to a system with a control efficiency of at least 95% by weight. [District Rules 2201 and 4623]
- 5. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
- 6. All tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

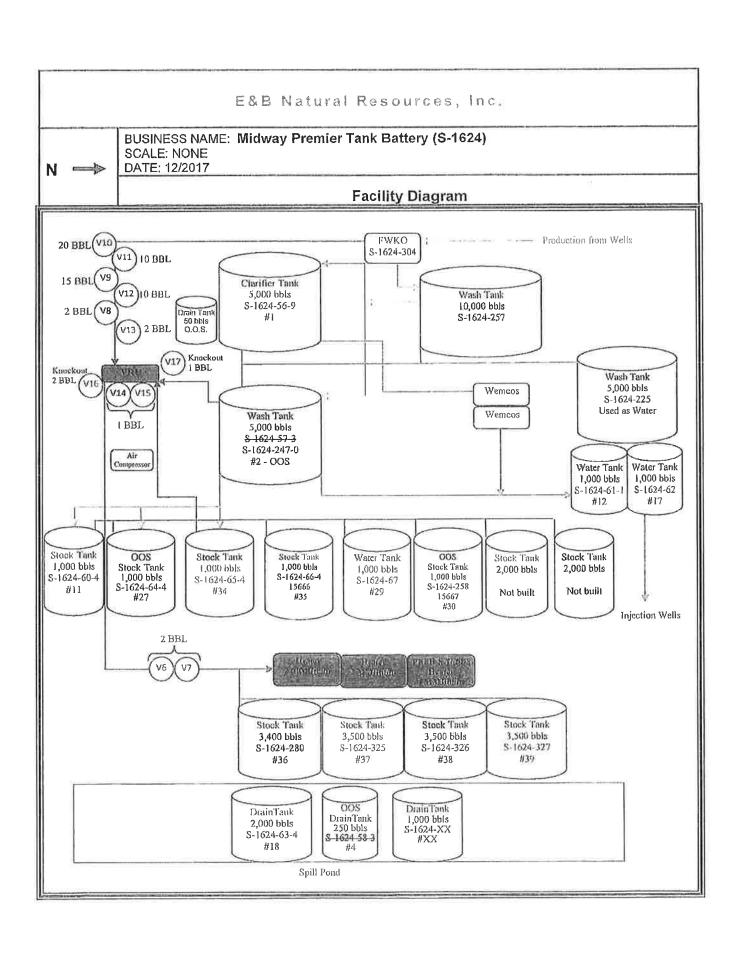
YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (664) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

- 7. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A gas leak is a violation of Rule 2201. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
- 9. VOC fugitive emissions from the components in gas service on the tank up to the vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
- 10. VOC fugitive emissions from the components in gas service on vapor control system shall not exceed 0.3 lb/day [District Rule 2201]
- 11. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201]
- 12. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 13. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 14. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 15. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 16. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3]
- 17. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3]
- 18. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) 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 minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3]

- 19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3]
- 20. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3]
- 21. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3]
- 22. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
- 23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
- 24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]

Attachment II Facility Diagram

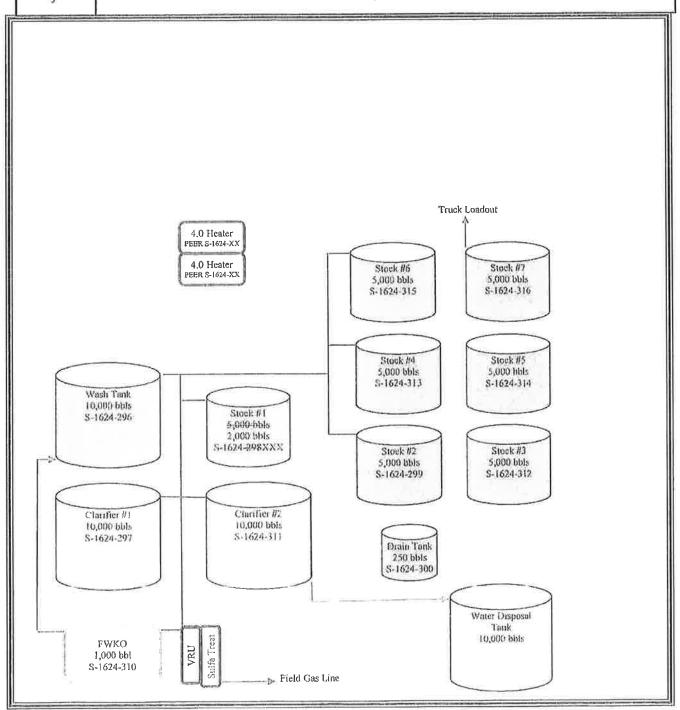


E&B Natural Resources, Inc.



BUSINESS NAME: Anza Tank Battery S-1624 SCALE: NONE

Facility Diagram



Attachment III Emissions Calculations

Total VOC Emissions =

Fugitive Emissions Using Screening Emission Factors

California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities
Table IV-2c. Oil and Gas Production
Screening Value Ranges Emission Factors

Percentage of components with \geq 10,000 ppmv leaks allowed? Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)?

0 % 100 % 100 %

									_					1.0						
VOC	emissions	(lb/day)	0.03	00.00	00.0	00.00	00'0	N/A	0.03	00.00	00.0	90.0	00.00	00.0	0.03	00.00	00.00	00.0	00.0	00:0
Je EF - TOC	: 10,000 ppmv > 10,000 ppmv	(lb/day/source)	7.333E+00	3.741E+00	N/A*	4.709E+00	4.709E+00	N/A	7.281E+00	3.757E-01	N/A*	1.370E+00	1.238E+00	4.233E-04	3.228E+00	1.376E+01	N/A*	2.905E+00	1.175E+00	3.762E+00
Screening Value EF - TOC	< 10,000 ppmv	(lb/day/source)	1.852E-03	1,005E-03	7.408E-04	5.270E-02	1.402E-02	N/A	7.778E-03	6.931E-03	3.016E-03	6.349E-04	5.291E-04	4.233E-04	1.482E-03	1.270E-03	1.217E-03	1.270E-03	9.524E-04	7.937E-04
Total allowable	leaking	components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Component	Count	16	0	0	0	0	0	4	0	0	06	0	0	22	0	0	0	0	0
		Service	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil	Gas/Light Liquid	Light Crude Oil	Heavy Crude Oil
	Equipment	Type	Valves			Pump Seals			Others			Connectors			Flandes			Open-ended	Lines	

Emission factor not available. All components from equipment type and service will be assessed as < 10,000 ppmv

permit number (S-xxxx-xx-xx)	S-1624-337
facility tank I.D.	
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.5
liquid bulk storage temperature, Tb (°F)	100
is this a constant-level tank? (yes, no)	no
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	no
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	21.1
capacity of tank (bbl)	1,000
conical or dome roof? {c, d}	С
shell height of tank (feet)	16
average liquid height (feet)	10
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	4
condition {1: Good, 2: Poor}	1
This row only used if shell is different color from roofThis row only used if shell is different color from roof	4

Liquid Input Data	A	В
maximum daily fluid throughput (bbl)		5
maximum annual fluid throughput (bbl)	1,825	1,825
This row only used if flashing losses occur in this tank		100
This row only used if flashing losses occur in this tank	0	•
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	Α	В
daily maximum ambient temperature. Tax (°F)		77.65
daily minimum ambient temperature, Tan (°F)		53.15
daily total solar insulation factor, I (Btu/ft^2-day)		1648.9
atmospheric pressure, Pa (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (Tlx), Pvx (psia	99.0	0.9259
water vapor pressure at daily minimum liquid surface temperature (Tln), Pvn (psia	88.2	0.6653
water vapor pressure at average liquid surface temperature (Tla), Pva (psia)	93.6	0.7903
roof outage, Hro (feet)		0.2198
vapor space volume, Vv (cubic feet)		2174.86
paint factor, alpha		0.68
vapor density, Wv (lb/cubic foot)		0.0084
daily vapor temperature range, delta Tv (degrees Rankine)		49.04
vapor space expansion factor, Ke		0.1032

Results	lb/year	lb/day
Standing Storage Loss	690	1.89
Working Loss	91	0.25
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	781	2.1

Summary Table	
Permit Number	S-1624-33 7
Facility Tank I.D.	
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.1
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	5
Maximum Annual Fluid Throughput (bbl/year)	1,825
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N\A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	2.1
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	781

permit number (S-xxxx-xx-xx)	S-1624-58
facility tank I.D.	
nearest city {1: Bakersfield, 2: Fresno, 3: Stockton}	1
tank ROC vapor pressure (psia)	0.5
liquid bulk storage temperature, Tb (°F)	100
s this a constant-level tank? {yes, no}	no
will flashing losses occur in this tank (only if first-line tank)? {yes, no}	nc
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	15.3
capacity of tank (bbl)	250
conical or dome roof? {c, d}	
shell height of tank (feet)	8
average liquid height (feet)	5
are the roof and shell the same color? {yes,no}	yes
For roof:	
color {1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White}	4
condition {1: Good, 2: Poor}	1
This row only used if shell is different color from roof	3
This row only used if shell is different color from roof	1

Liquid Input Data	A	В
maximum daily fluid throughput (bbl)		250
maximum annual fluid throughput (bbl)	91,250	91,250
This row only used if flashing losses occur in this tank		100
This row only used if flashing losses occur in this tank	0	
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	В
daily maximum ambient temperature, Tax (°F)		77.65
daily minimum ambient temperature, Tan (°F)		53.15
daily total solar insulation factor, I (Btu/ft^2-day)		1648.9
atmospheric pressure, Pa (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (TIx), Pvx (psia	99.0	0.9259
water vapor pressure at daily minimum liquid surface temperature (Tln), Pvn (psia	88.2	0.6653
water vapor pressure at average liquid surface temperature (Tla), Pva (psia)	93.6	0.7903
roof outage, Hro (feet)		0.1594
vapor space volume, Vv (cubic feet)		580.86
paint factor, alpha		0.68
vapor density, Wv (lb/cubic foot)		0.0084
daily vapor temperature range, delta Tv (degrees Rankine)		49.04
vapor space expansion factor, Ke		0.1032

Results	lb/year	lb/day
Standing Storage Loss	184	0.50
Working Loss	4,563	12.50
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	4,747	13.0

Summary Table	
Permit Number	S-1624-58
Facility Tank I.D.	
Tank capacity (bbl)	250
Tank diameter (ft)	15.3
Tank shell height (ft)	8
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	250
Maximum Annual Fluid Throughput (bbl/year)	91,250
Maximum Daily Oil Throughput (bbl/day)	N/A
Maximum Annual Oil Throughput (bbl/year)	N\A
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	13.0
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	4,747

Attachment IV Emissions Profiles

Permit #: S-1624-296-2

Last Updated

Facility: E&B NATURAL RESOURCES MGMT

09/27/2018 DAVIDSOS

uipment Pre-Baselined: NO	<u>NOX</u>	<u>sox</u>	<u>PM10</u>	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	73.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	18.0
Q2:	0.0	0.0	0.0	0.0	18.0
Q3:	0.0	0.0	0.0	0.0	18.0
Q4:	0.0	0.0	0.0	0.0	18.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1624-336-0

Last Updated

Facility: E&B NATURAL RESOURCES MGMT

09/27/2018 DAVIDSOS

ipment Pre-Baselined: NO	NOX	<u>sox</u>	PM10	co	voc
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	781.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	2.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	195.0
Q2:	0.0	0.0	0.0	0.0	195.0
Q3:	0.0	0.0	0.0		195.0
Q4:	0.0	0.0	0.0	0.0	195.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1624-337-0

Last Updated

Facility: E&B NATURAL RESOURCES MGMT

09/10/2018 DAVIDSOS

ipment Pre-Baselined: NO	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	781.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	2.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	195.0
Q2:	0.0	0.0	0.0	0.0	195.0
Q3:	0.0	0.0	0.0	0.0	195.0
Q4:	0.0	0.0	0.0	0.0	195.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Attachment VI BACT Guideline and Analysis

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.1*

Last Update: 10/01/2002

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

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

[&]quot; Converted from Determinations 7.1.11 (10/01/02).

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

*This is a Summary Page for this Class of Source

Top Down BACT Analysis

VOC emissions may occur when the produced fluids from the crude oil production wells enter the oil storage tanks.

Step 1 - Identify All Possible Control Technologies

BACT Guideline 7.3.1 lists the controls that are considered potentially applicable to fixed-roof organic liquid storage or processing tank <5,000 bbl tank capacity. The VOC control measures are summarized below.

Technologically feasible:

99% control (waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available).

Achieved in Practice:

PV relief valve set to within 10% of maximum allowable pressure.

Step 2 - Eliminate Technologically Infeasible Options

All of the above identified control options are technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- 1. 99% control (waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program; transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available).
- 2. PV relief valve set to within 10% of maximum allowable pressure.

Step 4 - Cost Effectiveness Analysis

The applicant supplied the capital cost for a vapor control system to address the technologically feasible control option. The cost is \$110,715.

The annualized capital cost is

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

AP = Equivalent Annual Capital Cost of Control Equip.

P = Present value of the control equipment, including installation cost. \$110.715

i = interest rate (use 10% per policy)

n = equipment life (assume 10 years per policy)

AP= (P) {[(0.1)
$$(1 + 0.1)^{10}$$
]/[(1 + 0.1)¹⁰ - 1]}
AP= (P) x (0.16274) = (\$110,715) (0.1627) = \$18,013/year

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

Tons/yr =
$$781 \text{ lb/yr/}2000 \text{ lb/ton} = 0.3905 \text{ tons/yr}$$

This exceeds the cost effectiveness threshold for VOCs of \$17,500/ton. Therefore the vapor control system is not cost effective.

Step 5 - Select BACT

PV relief valve set to within 10% of maximum allowable pressure of the tank.

Attachment VI HRA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Steven Davidson – Permit Services

From: Jessica Rosas – Technical Services

Date: September 9, 2018

Facility Name: E&B Natural Resources

Location: HOCSS

Application #(s): S-1624-336-0 and 337-0

Project #: S-1183490

B. RMR SUMMARY

	RMR Summary								
Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required?	Special Permit Requirements?			
Unit 336-0 (Oil Tank)	0.00	0.00	0.00	8.83E-11	No	No			
Unit 337-0 (Oil Tank)	0.00	0.00	0.00	1.39E-10	No	No			
Project Totals	0.00	0.00	0.00	2.27E-10					
Facility Totals	>1	0.72	0.03	1.69E-05					

Proposed Permit Requirements

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

Unit # 336-0 & 337-0

No special requirements are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on September 9, 2018, to perform a Risk Management Review for a proposed installation of a two new oilfield tanks (336-0 and 337-0). Tanks S-1624-58 and S-1624-298 will be cancelled. The tank installed at Anza (336) will replace tank 58 and Midway Premier's new tank (337) installation will replace tank 298.

II. Analysis

Toxic emissions for this proposed unit were calculated using emission factors derived from 1991 source tests of central valley sites, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 336-0 (Anza)						
Source Type	Area	Location Type	Rural			
Area (m²)	45.6	Closest Receptor (m)	960			
Radius (m)	3.81	Type of Receptor	Residential			
Release Height (m)	7.32	Pollutant Type	VOC			
VOC Emission Rate (lb/hr)	0.01	VOC Emission Rate (lb/yr)	73			

	Analysis P t 337-0 (Mic	arameters dway Premier)	
Source Type	Area	Location Type	Rural
Area (m²)	168.3	Closest Receptor (m)	1978
Radius (m)	7.32	Type of Receptor	Residentia
Release Height (m)	5.18	Pollutant Type	VOC
VOC Emission Rate (lb/hr)	0.01	VOC Emission Rate (lb/yr)	73

III. Conclusion

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

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

AAQA.

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

IV. Attachments

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

Attachment VII Compliance Certification

San Joaquin Valley **Unified Air Pollution Control District** TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I.

II.

Title of Responsible Official (please print)

	TITLE VINODITION COM				
I.	TYPE OF PERMIT ACTION (Check appropri	ate	box)		
[] [X]		3	ADMINISTRATIV AMENDMENT	Æ	
CC	OMPANY NAME; E&B NATURAL RESOURCES MGM	Τ.			FACILITY ID: S=1624
1.	Type of Organization:[X] Corporation [] Sole Ownersh	ip	[] Government	[] Pa	artnership [] Utility
2.	Owner's Name: E&B NATURAL RESOURCES MGMT	•			
3.	Agent to the Owner: AMY ROTH, VICE PRESIDENT -	- RI	EGULATORY AF	FAIRS	5
11.	COMPLIANCE CERTIFICATION (Read each statem) Based on information and belief formed after reason continue to comply with the applicable federal requirement (s) that the comply with applicable federal requirement (s) that the comply with applicable federal requirement (s) that the complex with a comp	nab nab will ict y	the inquiry, the equinent(s). It inquiry, the equil become effective when I become aw	ipment ipment during are tha	identified in this application will identified in this application will the permit term, on a timely basis t incorrect or incomplete
I de	eclare, under penalty of perjury under the laws of the state	of	California, that the	forgoi	ng is correct and true:
	am Au		3	- 7	19-18
Sig	gnature of Responsible Official		Date)busi
	AMY ROTH				
Na	ame of Responsible Official (please print)				
	VICE PRESIDENT, REGULATORY AFFAIRS				



1600 Norris Road • Bakersfield, CA 93308

September 19, 2018

Mr. Leonard Scandura
Manager of Permit Services
San Joaquin Valley Unified APCD
34946 Flyover Court
Bakersfield, CA 93308

Subject: Compliance Certification – S-1183490 (Midway Premier and Anza)

Dear Mr. Scandura:

I hereby certify that all major Stationary Sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California, which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards.

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

The current project occurs at existing facilities. The applicant proposes to install two tanks at existing tank settings.

Since the project will replace existing tanks at the existing locations, the results will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Signature

Vice President, Regulatory Affairs

Title

Attachment VIII Draft ATCs

San Joaquin Valley Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSU

PERMIT NO: S-1624-296-2

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT **MAILING ADDRESS:** 2447 PACIFIC COAST HWY, STE 200

HERMOSA BEACH, CA 90245

LOCATION: HEAVY OIL CENTRAL

CA

SECTION: NW04 TOWNSHIP: 28S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF MODIFICATION OF 10,000 BBL FIXED ROOF CRUDE OIL WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANKS S-1624-297-0, '-298-0, '-299-0, AND '-300-0 (ANZA) (RENEWED ONE TIME - 11/22/17): CONNECT FWKO S-1624-310-0, AND TANKS S-1624-311-0, '-312-0, '-313-0, '-314-0, '-315-0, AND '-316-0 TO THE VAPOR CONTROL SYSTEM: CONNECT TANK S-1624-336 TO VAPOR CONTROL AND REMOVE S-1624-298

CONDITIONS

- 1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
- 2. ATC S-1624-296-1 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. ATCs S-1624-336 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank and routes the vapors to the field gas line which supports various combustion devices. The vapor control system shall be APCO-approved and maintained in leak-free condition. Vapors shall be discharged to a system with a control efficiency of at least 95% by weight. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 5. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

- 6. All tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
- 7. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A gas leak is a violation of Rule 2201. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. VOC fugitive emissions from the components in gas service on the tank up to the vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. VOC fugitive emissions from the components in gas service on vapor control system shall not exceed 0.3 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 13. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] Federally Enforceable Through Title V Permit
- 14. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623] Federally Enforceable Through Title V Permit
- 15. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623] Federally Enforceable Through Title V Permit
- 16. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 17. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

- 18. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) 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 minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 19. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 20. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 21. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 22. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 24. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit



San Joaquin Valley Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-336-0

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT **MAILING ADDRESS:** E&B NATURAL RESOURCES MGMT 2447 PACIFIC COAST HWY, STE 200

HERMOSA BEACH, CA 90245

LOCATION: HEAVY OIL CENTRAL

CA

EQUIPMENT DESCRIPTION:

2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1624-296 (ANZA)

CONDITIONS

- 1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- 3. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 4. All tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
- 5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A gas leak is a violation of Rule 2201. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. VOC fugitive emissions from the components in gas service on the tank up to the vapor control system trunk line shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director/APCO

Arnaud Marjollet, Director of Permit Services

- 7. Permittee shall maintain accurate component count for tank according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] 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 4623] Federally Enforceable Through Title V Permit
- 10. This tank shall be degassed before commencing interior cleaning by one of the following methods (1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or (2) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or (3) displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623] 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 4623] Federally Enforceable Through Title V Permit
- 12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 13. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) 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 minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 15. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

- 16. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 17. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
- 18. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 20. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 21. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit



San Joaquin Valley Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-337-0

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT

MAILING ADDRESS:

E&B NATURAL RESOURCES MGMT 2447 PACIFIC COAST HWY, STE 200

HERMOSA BEACH, CA 90245

LOCATION:

HEAVY OIL CENTRAL

CA

EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF PETROLEUM DRAIN TANK WITH PV VENT, MIDWAY PREMIER #4

CONDITIONS

- 1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- 3. Permit S-1624-58 shall be canceled upon implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. Crude oil throughput shall not exceed 5 barrels per day based on a monthly average. [District Rule 2201 and 4623] Federally Enforceable Through Title V Permit
- 5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
- 6. The tank shall be equipped with a fixed roof with no holes or openings [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. VOC emission rate from the tank shall not exceed 2.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director APCO

Arnaud Marjollel, Director of Permit Services

- 8. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. 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
- 12. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
- 13. 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
- 14. 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
- 15. 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
- 16. 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
- 17. Permittee shall maintain records of TVP and API gravity 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]
- 18. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
- 19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

