



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



JUL 22 2015

Shams Hasan
E&B Natural Resources
3000 James Road
Bakersfield, CA 93308

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-1807
Project Number: S-1152825

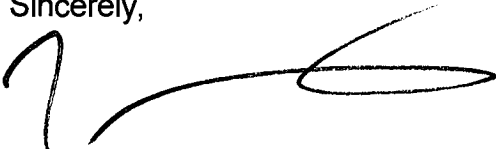
Dear Mr. Hasan:

Enclosed for your review and comment is the District's analysis of E&B Natural Resources's application for an Authority to Construct for two tanks, in western Kern County.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and 45-day EPA notice comment periods, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. David Torii of Permit Services at (661) 392-5620.

Sincerely,




Arnaud Marjollet
Director of Permit Services

AM:dbt

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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Bakersfield, CA 93308-9725
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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Two New Fixed Roof Oil Field Production Tanks

Facility Name: E&B Natural Resources Date: 6/12/15
Mailing Address: 3000 James Road Engineer: David Torii
Bakersfield, CA 93308 Lead Engineer: Rich Karrs
Contact Person: Shams Hasan
Telephone: (661) 616-4664
Application #(s): S-1807-77-0 and '78-0
Project #: 1152825
Deemed Complete: 6/9/15

RWK
6-24-15

E&B Natural Resources (ENR) has requested an Authority to Construct (ATC) permits for the installation of two new fixed roof crude oil storage tanks. The new tanks' emission increase will be mitigated with the surrender of tank S-1807-23.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
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

The equipment will be located at the Hopkins A lease within the SW/4 of Section 31, Township 27S, Range 20E in ENR's Heavy Oil Western stationary source. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The tanks and vessels at the tank battery receive production from the Hopkins lease prior to transport.

V. Equipment Listing

PTO to be Surrendered (see PTO in Appendix A):

S-1807-23: 2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #2851 (HOPKINS A PROPERTY)

Proposed ATCs:

S-1807-77-0: 300 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VALVE (HOPKINS A LEASE)

S-1807-78-0: 1000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VALVE (HOPKINS A LEASE)

VI. Emission Control Technology Evaluation

The tanks 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.
- The tanks emit only volatile organic compounds (VOCs),
- New tanks' oil TVP = 0.5 psia (Applicant)
- Tank temperature, 100° F (unheated)
- Throughput of new tanks = 50 bbl/day (Applicant)
- S-1807-23 throughput = one turnover/day (District practice)
- S-1807-23 oil TVP = 0.5 psia (PTO)
- VOCs molecular weight, 100 lb/lbmol (District Assumption)

B. Emission Factors

Both the daily and annual PE's for each permit unit will be based on the results from 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.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Permit Unit	VOC - Daily PE1 (lb/day)	VOC - Annual PE1 (lb/Year)
S-1807-23	102.9	37,576

See emission calculations in Appendix B

Since S-1807-77 and '78 are new emissions units their PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

Permit Unit	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
S-1807-77-0	3.1	1114
S-1807-78-0	4.4	1609
Total:		2723

See emission calculations in Appendix C

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

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

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

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

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

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

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

This facility 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 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.

Tank S-1807-23 is equipped with a PV vent, which satisfies the current Achieved-in-Practice BACT requirement, it is considered a Clean Emissions Unit.

Therefore, the BE for S-1807-23 is the pre-project potential to emit (PE1).

BE for S-1807-77-0 and '78-0 is equal to zero as they are new permit units.

7. SB 288 Major Modification

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

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	0	50,000	N
SO _x	0	80,000	N
PM ₁₀	0	30,000	N
VOC	2723	50,000	N

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

8. Federal Major Modification

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

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

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?
NO _x *	0	0	N
VOC*	2723	0	Y
PM ₁₀	0	30,000	N
PM _{2.5}	0	20,000	N
SO _x	0	80,000	N

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification, and no further analysis is required.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

The applicant is proposing to install new tanks, each with a PE greater than 2.0 lbs/day, therefore, BACT is triggered for each tank.

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.

d. SB 288/Federal Major Modification

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

2. BACT Guideline

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

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 Appendix D), BACT has been satisfied with the following:

- Pressure and vacuum (PV) relief valve on tank vent set to within 10% of maximum allowable pressure

B. Offsets

1. Offset Applicability

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

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

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

2. Quantity of Offsets Required

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

The facility is proposing to install new emissions units with BE = 0 and to surrender a unit with BE = PE1. Therefore offsets can be determined as follows:

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

$\Sigma PE2$ (VOC) = 2723 lb/year (see calculation in Section VII. C.2 above)

ΣBE (VOC) = 37,576 lb/year (see calculation in Section VII. C.2 above)

ICCE = 0 lb/year

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

$$= (2723 - 37,576)$$

$$= -34,853 \text{ lb/yr} = 0$$

Therefore, offsets are not required for the project.

C. Public Notification

1. Applicability

Public noticing is required for:

- New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- Any project which results in the offset thresholds being surpassed, and/or

- d. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.
- e. Any project which results in a Title V significant permit modification

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

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

As demonstrated in Sections VII.C.7 and VII.C.8, this project is 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

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
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. SSPE > 20,000 lb/year

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

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

Since this facility does not have a Title V operating, this change is not a Title V significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for triggering a Federal Major Modification. Therefore, public notice documents will be submitted to the EPA and 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-1807-77-0:

- 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
- Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] N
- VOC emissions from this tank shall not exceed 3.1 pounds in any one day. [District Rules 2201 and 4623] N

S-1807-78-0:

- 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
- Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] N
- VOC emissions from this tank shall not exceed 4.4 pounds in any one day. [District Rules 2201 and 4623] N

E. Compliance Assurance

1. Source Testing

The permittee will be required to perform periodic TVP testing for all tanks in this project using the latest EPA and CARB approved version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph" to validate non-applicability of Rule 4623. The testing shall be conducted once every 24 month period or every time when the source of liquid stored is changed.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

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

- 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] N
- {2490} 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] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall 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 proposed equipment emits VOC only. VOC does not have an ambient air quality standard; therefore, an AAQA is not required.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I 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 Title I modification, therefore this requirement is applicable. ENR's compliance certification is included in Appendix F.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install storage tanks.

Since the project will provide tankage 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

Since this facility's emissions exceed the major source thresholds of District Rule 2201, this facility is a major source. However, this facility has elected to comply with Rule 2530, and is therefore exempt from the requirements of Rule 2520.

Rule 2530 Federally Enforceable Potential to Emit

The purpose of this rule is to restrict the emissions of a stationary source so that the source may elect to be exempt from the requirements of Rule 2520. Pursuant to Rule 2530, since this facility has elected exemption from the requirements of Rule 2520 by ensuring actual emissions from the stationary source in every 12-month periods to not exceed the following: $\frac{1}{2}$ the major source thresholds for NO_x, VOCs, CO, and PM₁₀; 50 tons per year SO₂; 5 tons per year of a single HAP; 12.5 tons per year of any combination of HAPs; 50 percent of any lesser threshold for a single HAP as the EPA may establish by rule; and 50 percent of the major source threshold for any other regulated air pollutant not listed in Rule 2530.

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

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

Rule 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 (**Appendix E**), 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 cancer risk for this project is shown below:

RMR Summary			
Categories	Oil Tanks (Units 77-0 & 78-0)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	>1
Acute Hazard Index	0.00	0.00	0.18
Chronic Hazard Index	0.00	0.00	0.04
Maximum Individual Cancer Risk	2.72E-09	2.72E-09	4.83E-06
T-BACT Required?	No		
Special Permit Conditions?	No		

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.

Rule 4623, *Storage of Organic Liquids*

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

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

- 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
- {Modified 2910} Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank upon initial start-up, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201 and 4623] N
- The TVP and API gravity testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rules 2201, and 4623] N
- {Modified 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 Rules 2201 and 4623] N
- {Modified 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 Rules 2201 and 4623] N
- {Modified 2912} 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 Rules 2201 and 4623]

Compliance with the requirements of this rule 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.

The California Environmental Quality Act (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 San Joaquin Valley Unified Air Pollution Control District (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.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the project qualifies for ministerial approval under the District's Guideline for Expedited Application Review (GEAR). Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-1807-77-0 and '78-0 subject to the permit conditions on the attached draft ATCs in **Appendix G**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1807-77-0	3020-05 B	12,600 gallons	\$93
S-1807-78-0	3020-05 C	42,000 gallons	\$135

Appendixes

- A: Current PTO
- B: PE1 Calculations
- C: PE2 Calculations
- D: BACT Guideline and BACT Analysis
- E: HRA Summary
- F: Compliance Certification
- G: Draft ATC

APPENDIX A
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1807-23-1

EXPIRATION DATE: 05/31/2017

SECTION: SW31 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:

2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #2851 (HOPKINS A PROPERTY)

PERMIT UNIT REQUIREMENTS

1. Facilities S-1807 and S-6826 are part of the same stationary source. [District Rule 2201]
2. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
3. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
6. 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]
7. 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]
8. 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]
9. 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]
10. 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]
11. 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]
12. 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]
13. 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]

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

Facility Name: E&B NATURAL RESOURCES MGMT CORP
Location: HEAVY OIL WESTERN STATIONARY SOURCE,CA
S-1807-23-1 : Jun 12 2015 11:01AM - TORID

APPENDIX B

PE1 Calculations

Tank Input Data	
permit number (S-xxxx-xx-xx)	
facility tank I.D.	S-1807-23
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)	24.4
capacity of tank (bbl)	2,000
conical or dome roof? {c, d}	c
shell height of tank (feet)	16
average liquid height (feet)	9
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	B
maximum daily fluid throughput (bbl)		2,000
maximum annual fluid throughput (bbl)		730,000
-----This row only used if flashing losses occur in this tank-----		
-----This row only used if flashing losses occur in this tank-----		
molecular weight, Mw (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{vx} (psia)	99.0	0.9259
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (psia)	88.2	0.6653
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	93.6	0.7903
roof outage, H _{ro} (feet)		0.2542
vapor space volume, V _v (cubic feet)		3392.01
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0084
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1032

Results	lb/year	lb/day
Standing Storage Loss	1,076	2.95
Working Loss	36,500	100.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	37,576	102.9

APPENDIX C

PE2 Calculations

S-1807-77-0

E&B Natural Resources Management, Inc.
Hopkins A

Tank Input Data	
permit number (S-xxx-xx-xx)	S-1807-XX
facility tank I.D.	
nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)	1
tank ROC vapor pressure (psia)	0.5
liquid bulk storage temperature, T_b ($^{\circ}$ 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)	11.5
capacity of tank (bbl)	300
conical or dome roof? (c, d)	c
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 roof—	4
—This row only used if shell is different color from roof—	1

297

Liquid Input Data		A	B
maximum daily fluid throughput (bbl)			50
maximum annual fluid throughput (bbl)			18,250
—This row only used if flashing losses occur in this tank—			50
—This row only used if flashing losses occur in this tank—			18,250
molecular weight, M_w (lb/lb-mol)			100

Calculated Values		A	B
daily maximum ambient temperature, T_{ax} ($^{\circ}$ F)			77.65
daily minimum ambient temperature, T_{an} ($^{\circ}$ F)			53.15
daily total solar insulation factor, I (Btu/ft ² -day)			1648.9
atmospheric pressure, P_a (psia)			14.47
(psia)	99.0		0.9259
(psia)	88.2		0.6653
water vapor pressure at average liquid surface temperature (T_{la}), P_{va} (psia)	93.6		0.7903
roof outage, H_{ro} (feet)			0.1198
vapor space volume, V_v (cubic feet)			635.66
paint factor, α			0.68
vapor density, W_v (lb/cubic foot)			0.0084
daily vapor temperature range, ΔT_v (degrees Rankine)			49.04
vapor space expansion factor, K_e			0.1032

Results	lb/year	lb/day
Standing Storage Loss	202	0.55
Working Loss	913	2.50
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,114	3.1

Summary Table	
Permit Number	S-1807-XX
Facility Tank I.D.	
Tank capacity (bbl)	300
Tank diameter (ft)	11.5
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	50
Maximum Annual Fluid Throughput (bbl/year)	18,250
Maximum Daily Oil Throughput (bbl/day)	50
Maximum Annual Oil Throughput (bbl/year)	
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	3.1
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,114

S-1807-78-0

E&B Natural Resources Management, Inc.
Hopkins A

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1807-XX
facility tank I.D.	
nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)	1
tank ROC vapor pressure (psia)	0.5
liquid bulk storage temperature, T _b (°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)	21.2
capacity of tank (bbl)	1,000
conical or dome roof? (c, d)	c
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 roof -----	4
----- This row only used if shell is different color from roof -----	1

1,008

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		50
maximum annual fluid throughput (bbl)		18,250
----- This row only used if flashing losses occur in this tank -----		50
----- This row only used if flashing losses occur in this tank -----		18,250
molecular weight, M _w (lb/lb-mol)		100

Calculated Values	A	B
daily maximum ambient temperature, T _{ax} (°F)		77.65
daily minimum ambient temperature, T _{an} (°F)		53.15
daily total solar insulation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
(psia)	99.0	0.9259
(psia)	88.2	0.6653
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	93.6	0.7903
roof outage, H _{ro} (feet)		0.2208
vapor space volume, V _v (cubic feet)		2195.89
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0084
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1032

Results	lb/year	lb/day
Standing Storage Loss	696	1.91
Working Loss	913	2.50
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	1,609	4.4

Summary Table	
Permit Number	S-1807-XX
Facility Tank I.D.	
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.2
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	50
Maximum Annual Fluid Throughput (bbl/year)	18,250
Maximum Daily Oil Throughput (bbl/day)	50
Maximum Annual Oil Throughput (bbl/year)	
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	4.4
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	1,609

APPENDIX D
BACT Guideline and BACT Analysis

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

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

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

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

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is requiried 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. For background information, see Permit Specific BACT Determinations on Details Page.

Top-Down BACT Analysis

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

1. 99% Vapor Control Option:

In project S1144500 the installation cost for a vapor control system suitable for the proposed tanks was provided. The detailed cost effectiveness calculation is presented below.

Control Equipment Costs:

Vapor Recovery Unit (VRU):	\$ 46,952
Piping costs:	\$ 40,000
Scrubber/Compressor:	\$ 23,763
Total:	\$ 110,715

Operating costs annually (electricity, maintenance, labor): \$12,000

Equivalent Annual Control Equipment Cost calculation per APCD Policy APR 1305-9

Section X(A)(1). Assume $i = 10\%$ and $n = 10$ years.

$$A = P * ((i * (1 + i)^n) / ((1 + i)^n - 1))$$

$$A = \$110,715 * ((.10 * (1 + .10)^{10}) / ((1 + .10)^{10} - 1))$$

$$A = \$18,013$$

Total Annual Costs calculation per Section X(A)(3)

Total Annual Costs = Equivalent Annual Control Equipment Cost + Annual
Operating Cost

$$\text{Total Annual Costs} = \$18,013 + \$12,000 = \$30,013$$

Annual Emissions Reduction

$$\text{PE2} = 2723 \text{ lb/yr (1.4 tons/yr)}$$

$$\begin{aligned} \text{Control System with 99\% efficiency} &= 1.36 \text{ tons/yr} * 0.99 \\ &= 1.35 \text{ tons/yr reduction} \end{aligned}$$

Control Cost per Section X(A)(4)

$$\begin{aligned} \text{Control Cost} &= (\$30,013/\text{yr}) / (1.35 \text{ tons VOC/yr}) \\ &= \$22,232 \text{ ton VOC} \end{aligned}$$

This exceeds the cost effectiveness threshold for VOCs of \$17,500/ton.
Therefore, the 99% vapor control option is not cost effective.

2. PV Relief Valve Option:

The applicant is proposing this option and it is considered to be Achieved-in-Practice, so a cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for this unit is: PV relief valve set to within 10% of maximum allowable pressure of the tank

APPENDIX E

HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Will Jones – Permit Services
From: Kyle Melching – Technical Services
Date: June 12, 2015
Facility Name: E&B Natural Resources
Location: SW/4 Sect 31/T27S/R20E
Application #(s): S-1807-77-0 & 78-0
Project #: S-1152825

A. RMR SUMMARY

RMR Summary			
Categories	Oil Tanks (Units 77-0 & 78-0)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	>1
Acute Hazard Index	0.00	0.00	0.18
Chronic Hazard Index	0.00	0.00	0.04
Maximum Individual Cancer Risk	2.72E-09	2.72E-09	4.83E-06
T-BACT Required?	No		
Special Permit Conditions?	No		

I. Project Description

Technical Services received a request on June 8, 2015, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) to install two crude oil stock tanks.

II. Analysis

Toxic emissions from the project were calculated using a District approved spreadsheet for Oilfield Equipment Fugitive - District, along with increased VOC fugitive emission rates calculated and supplied by the processing engineer. In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with area source parameters outlined below and concatenated 5-year meteorological data from Missouri Triangle to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to

calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk. An AAQA was requested; however, AAQA's only look at criteria pollutants NO_x, SO_x, CO, and PM. Therefore, no AAQA was performed.

The following parameters were used for the review:

Analysis Parameters (Unit 77-0 & 78-0) (Each)			
Source Type	Area	Closest Receptor (m)	213
Average Release Height (m)	2.44	Type of Receptor	Residence/ Business
Average Tank Radius (m)	7.62	Location Type	Rural
77-0 VOC Emissions (lb/hr)	0.02	77-0 VOC Emissions (lb/yr)	181
78-0 VOC Emissions (lb/hr)	0.02	78-0 VOC Emissions (lb/yr)	181

III. Conclusions

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with the project is **2.72E-09**, which is less than the 1 in a million threshold. 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.

APPENDIX F
Compliance Certification

APPENDIX G
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1807-77-0

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT CORP

MAILING ADDRESS: ATT: SHAMS HASAN
1600 NORRIS ROAD
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SW31 TOWNSHIP: 27S RANGE: 20E

EQUIPMENT DESCRIPTION:

300 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VALVE (HOPKINS A LEASE)

CONDITIONS

1. PTO S-1807-23 shall be cancelled upon implementation of ATC. [District Rule 2201]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. 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. [District Rule 4623]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623]
5. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
6. VOC emissions from this tank shall not exceed 3.1 pounds in any one day. [District Rules 2201 and 4623]
7. Permittee shall conduct true vapor pressure (TVP) and API gravity 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 Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

S-1807-77-0 : Jun 24 2016 10:44AM - TORID : Joint Inspection NOT Required

9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623]
10. 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]
11. 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]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1807-78-0

LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT CORP

MAILING ADDRESS: ATT: SHAMS HASAN
1600 NORRIS ROAD
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: SW31 TOWNSHIP: 27S RANGE: 20E

EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV VALVE (HOPKINS A LEASE)

CONDITIONS

1. PTO S-1807-23 shall be cancelled upon implementation of ATC. [District Rule 2201]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. 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. [District Rule 4623]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623]
5. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
6. VOC emissions from this tank shall not exceed 4.4 pounds in any one day. [District Rules 2201 and 4623]
7. Permittee shall conduct true vapor pressure (TVP) and API gravity 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 Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

S-1807-78-0: Jun 24 2019 10:44AM - TORID : Joint Inspection NOT Required

9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623]
10. 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]
11. 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]

DRAFT