FEB 27 2013

Greg Youngblood  
E&B Natural Resources  
34740 Merced Avenue  
Bakersfield, CA 93308

Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: S-1120238

Dear Mr. Youngblood:

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 2000 bbl crude oil storage tanks, at the Conoco and E&M tank batteries within the heavy oil production stationary source in the central Kern County fields.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

[Signature]

David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures
FEB 27 2012

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: S-1120238

Dear Mr. Tollstrup:

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 2000 bbl crude oil storage tanks, at the Conoco and E&M tank batteries within the heavy oil production stationary source in the central Kern County fields.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

David Warner  
Director of Permit Services

DW: RUE/cm

Enclosure
FEB 27 2012

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1120238

Dear Mr. Rios:

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 2000 bbl crude oil storage tanks, at the Conoco and E&M tank batteries within the heavy oil production stationary source in the central Kern County fields.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

David Warner
Director of Permit Services

DW: RUE/cm

Enclosure
NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to E&G Natural Resources for two 2000 bbl crude oil storage tanks, at the Conoco and E&M tank batteries within the heavy oil production stationary source in the central Kern County fields.

The analysis of the regulatory basis for this proposed action, Project #S-1120238, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.
San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Two 2000 bbl tanks

Facility Name: E&B Natural Resources
Mailing Address: 34740 Merced Avenue
Bakersfield, CA 93308
Contact Person: Greg Youngblood and Scott Faulkenburg
Telephone: (661) 766-2501 (GY), (661) 377-0073 (#15) 345-8263 (SF cell)
Fax: (661) 766-2348
E-Mail: sfaulkenburg@ix.netcom.com
Application #(s): S-1624-216-0 and ‘-217-0
Project #: 1120238
Deemed Complete: February 2, 2012

I. Proposal

E&B Natural Resources (E&B) is requesting Authorities to Construct (ATCs) for two 2000 bbl crude oil storage tanks. The increase in VOC’s emissions will be mitigated by cancelation of PTO S-1624-76-1 for a 1000 bbl crude oil storage tank.

The project is a Federal Major Modification and, therefore, BACT and public notice are required.

E&B is Rule 2530 stationary source and therefore is not subject to Rule 2520.

PTO S-1624-76-1 (to be canceled) is included in Attachment I.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2530 Federally Enforceable Potential to Emit (12/18/08)
Rule 4001 New Source Performance Standards (4/14/99) Subpart Kb – not applicable –proposed tanks ‘-216 and ‘-217 (2000 bbl) are no greater than 10,000 bbls in capacity and store crude oil prior to custody transfer
Rule 4102 Nuisance (12/17/92)
Rule 4823 Storage of Organic Liquids (05/19/05)
Rule 4801 Sulfur Compounds (12/17/92)
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 new and existing tanks have the following locations within the heavy oil production stationary source in the central Kern County fields:

S-1624-76 (to be deleted): Conoco Lease, Section 33, T27S, R27E
S-1624-216: Conoco Lease, Section 33, T27S, R27E
S-1624-217: E&M Lease, NW Section 2, T29S R28E

The proposed locations are not within 1,000 feet of a school.

IV. Process Description

The proposed tanks will receive production prior to shipment offsite (custody transfer).

Facility diagrams are included in Attachment II.

V. Equipment Listing

Pre-Project Equipment Description:

PTO S-1624-76-1: 1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK, CONOCO #9 (TO BE DELETED)

Post-Project Equipment Description:

PTO S-1624-216-0: 2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (CONOCO LEASE)

ATC S-1624-217-0: 2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (E&M 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).
- Tank temperature, 100° F (unheated)
- VOCs molecular weight, 100 lb/lbmol
S-1624-76 (to be canceled)
- 1000 bbl/day throughput (1 turnover per day; TVP = 0.5 psia. PE1)

S-1624-216, ‘-217
- 300 bbl/day, throughput TVP of oil = 0.1 psia (conservatively higher than 0.03 psia for E&M tank, 2-14-12 applicant emailed laboratory analysis)

Additional tank assumptions i.e. dimensions, paint color, condition included in Attachment III.

B. Emission Factors

S-1624-76 (to be canceled), ‘-216 and ‘-217

Both the daily and annual PE’s for these storage tanks were based on the results from the District’s Microsoft Excel spreadsheets for Tank Emissions - Fixed Roof Crude Oil less than 26° API located in Attachment III.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

S-1624-76

VOC: 52.3 lb/day, 19,082 lb/yr

S-1624-216, ‘-217

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

2. Post Project Potential to Emit (PE2)

S-1624-216 and ‘-217 (each)

VOC: 3.9 lb/day, 1423 lb/yr

Greenhouse Gas (GHG) Emissions

The project results in a decrease in VOC emissions and therefore no increase in GHG emissions is expected.

The emissions profiles are included in Attachment IV.

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-project Stationary Source Potential to Emit (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 that have occurred at the source, and which have not been used on-site.

The SSPE1 was calculated using SSPE calculator for project 1120125 (as SSPE2) which is the latest project finalized in PAS. This calculation is approximate as it did not include emissions from outstanding ATCs which resulted in changes in VOC emissions only.

<table>
<thead>
<tr>
<th>SSPE1 (lb/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
</tr>
<tr>
<td>18,814</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Post Project Stationary Source Potential to Emit (SSPE2)</th>
</tr>
</thead>
</table>

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) 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 that have occurred at the source, and which have not been used on-site.

<table>
<thead>
<tr>
<th>SSPE2 (lb/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
</tr>
<tr>
<td>18,814</td>
</tr>
<tr>
<td>S-1624-76 PE2-PE1</td>
</tr>
<tr>
<td>S-1624-216 PE2</td>
</tr>
<tr>
<td>S-1624-217 PE2</td>
</tr>
<tr>
<td>SSPE2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Major Source Determination</th>
</tr>
</thead>
</table>

Pursuant to Section 3.23 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."
### Major Source Determination (lb/year)

<table>
<thead>
<tr>
<th></th>
<th>NOx</th>
<th>SOx</th>
<th>PM$_{10}$</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Project SSPE (SSPE1)</td>
<td>18,814</td>
<td>6,079</td>
<td>6,987</td>
<td>71,417</td>
<td>5,072,992</td>
</tr>
<tr>
<td>Post Project SSPE (SSPE2)</td>
<td>18,814</td>
<td>6,079</td>
<td>6,987</td>
<td>71,417</td>
<td>5,056,756</td>
</tr>
<tr>
<td>Major Source Threshold</td>
<td>20,000</td>
<td>140,000</td>
<td>140,000</td>
<td>200,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Major Source?</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

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

### 6. Baseline Emissions (BE)

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

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit 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 Section 3.22 of District Rule 2201.

**S-1624-76:**

**Clean Emissions Unit, Located at a Major Source**

Pursuant to Rule 2201, Section 3.12, a Clean Emissions Unit is defined as an emissions unit that is “equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

Tank S-1624-76 is equipped with a pressure vacuum (P/V) valve set to within 10% of the maximum allowable pressure which satisfies the Achieved-in-Practice requirements of current BACT Guideline 7.3.1 which applies to “Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl tank capacity.”
S-1624-216. 217

Since these are a new emissions unit, 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 facility is a major source for VOCs, the project PE2 is compared to the SB 288 Major Modification Threshold in the following table in order to determine if the SB 288 Major Modification calculation is required.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Project PE2* (lb/year)</th>
<th>Threshold (lb/year)</th>
<th>SB 288 Major Modification Calculation Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>1423 x 2 = 2486</td>
<td>50,000</td>
<td>No</td>
</tr>
</tbody>
</table>

Since the SB 288 Major Modification Threshold is not surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not Federal Major Modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a Federal Major Modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxv)(A) through (D) shall be used.
- If the project is determined not to be a Federal Major Modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
• Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Threshold (lb/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>0</td>
</tr>
<tr>
<td>NOx</td>
<td>0</td>
</tr>
<tr>
<td>PM10</td>
<td>30,000</td>
</tr>
<tr>
<td>SOx</td>
<td>80,000</td>
</tr>
</tbody>
</table>

The Net Emissions Increases (NEIs) for purposes of determination of a "Less-Than-Significant Emissions Increase" exclusion will be calculated below to determine if this project qualifies for such exclusion.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project. Since the PE2 for '1.216 and '1.217 exceeds 0 lb/yr the project is a Federal Major Modification.

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. As the tanks are new emissions units QNEC = PE/4.

VIII. Compliance

Rule 2201  New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

a. Any new emissions unit with a potential to emit exceeding two pounds per day,

b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or

d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.
a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install two new fixed-roof tanks with PEs greater than 2 lb/day for VOC. BACT is triggered since the PEs are greater than 2 lbs/day.

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 Section VII.C.7 above, this project constitutes a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOCs.

2. BACT Guidance

Per District Policy APR 1305, Section IX, “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 for source categories or classes covered in the BACT Clearinghouse, relevant information under each of the following steps may be simply cited from the Clearinghouse without further analysis.”

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 VI), BACT has been satisfied with the following:

VOC: pressure and vacuum (PV) relief valve on tank vent set to within 10% of maximum allowable pressure
B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

2. Quantity of Offsets Required

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.

<table>
<thead>
<tr>
<th>Offset Determination (lb/year)</th>
<th>NOx</th>
<th>SOX</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSPE2</td>
<td>18,814</td>
<td>6,079</td>
<td>6,987</td>
<td>71,417</td>
<td>5,056,756</td>
</tr>
<tr>
<td>Offset Thresholds</td>
<td>20,000</td>
<td>54,750</td>
<td>29,200</td>
<td>200,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Offsets calculations required?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x 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 = Pre-project Potential to Emit 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)
<table>
<thead>
<tr>
<th></th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1624-76 BE</td>
<td>-19,082</td>
</tr>
<tr>
<td>S-1624-76 PE2</td>
<td>0</td>
</tr>
<tr>
<td>S-1624-216 PE2</td>
<td>+1423</td>
</tr>
<tr>
<td>S-1624-217 PE2</td>
<td>+1423</td>
</tr>
<tr>
<td>[PE2 - BE]\</td>
<td>-16,236</td>
</tr>
</tbody>
</table>

Offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

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

As demonstrated in VII.C.7, this project 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. There are no new emissions units with a PE > 100 lb/day associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE1 (lb/year)</th>
<th>SSPE2 (lb/year)</th>
<th>Offset Threshold</th>
<th>Public Notice Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{x}</td>
<td>18,814</td>
<td>18,814</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>6,079</td>
<td>6,079</td>
<td>54,750 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>6,987</td>
<td>6,987</td>
<td>29,200 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>71,417</td>
<td>71,417</td>
<td>200,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>5,072,992</td>
<td>5,056,756</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
</tbody>
</table>

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 Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 − SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE1 (lb/year)</th>
<th>SSPE2 (lb/year)</th>
<th>SSIPE (lb/year)</th>
<th>SSIPE Public Notice Threshold</th>
<th>Public Notice Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{x}</td>
<td>18,814</td>
<td>18,814</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>6,079</td>
<td>6,079</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>6,987</td>
<td>6,987</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>71,417</td>
<td>71,417</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>5,072,992</td>
<td>5,056,756</td>
<td>-16,236</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
</tbody>
</table>

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

2. Public Notice Action

As discussed above, this project is a Federal Major Modification. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

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

**Proposed Rule 2201 (DEL) Conditions:**

S-1624-216, 217:

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

Crude oil throughput shall not exceed 300 barrels per day based on a monthly average. [District Rules 2201 and 4623] N

This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.1 psia under all storage conditions. [District Rules 2201 and 4623] N

**E. Compliance Assurance**

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.

True vapor pressure and API gravity of liquids introduced, stored or held in the tank shall be measured 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 lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rules 2201 and 4623] N

1. **Monitoring**

Monitoring is not required.

2. **Record Keeping**

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

Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2201 & 4623] N

All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2201 and 4623] N
3. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

Operator shall submit the records of TVP and API gravity testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2201 and 4623] N

F. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed above, the project is a Federal Major Modification, therefore this requirement is applicable. Included in Attachment VII is E&B’s Statewide Compliance Certification document.

G. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to reauthorize a tank. Since the project is at the current facility 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 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: ½ the major source thresholds for NOx, VOCs, CO, and PM_{10}; 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.

District Rule 4102  Nuisance

Section 4.0 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.

California Health & Safety Code 41700  (Health Risk Assessment)

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 VIII), the total facility prioritization score including this project was less than one and therefore the project is approvable without TBACT.

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:

{2480} This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] N

{2910} 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 Rules 2201 and 4623] N


{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

{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 Rules 2201 and 4623] N

{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] N

{2913} The permittee 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 Rules 1070, 2201, and 4623] N

Compliance 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.

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

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project. The District’s engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

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

Compliance with all applicable rules and regulations is expected. Issue Authorities to Construct S-1624-216-0 and '-217-0 subject to the permit conditions on the attached draft Authority to Construct in Attachment IX.

X. Billing Information

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Fee Schedule</th>
<th>Fee Description</th>
<th>Annual Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1624-216</td>
<td>3020-05SD</td>
<td>84,000 gallons</td>
<td>$75.00</td>
</tr>
<tr>
<td>S-1624-217</td>
<td>3020-05SD</td>
<td>84,000 gallons</td>
<td>$75.00</td>
</tr>
</tbody>
</table>

Attachments

I: PTO S-1624-76-1
II: Facility Diagrams
III: Tank Emissions Calculations
IV: Emissions Profiles
V: BACT Guideline
VI: BACT Analysis
VII: Compliance Certification
VIII: HRA
IX: Draft ATC
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1624-76-1
SECTION: 33    TOWNSHIP: 27S    RANGE: 27E
EQUIPMENT DESCRIPTION:
1,000 BBL Fixed Roof Petroleum Storage Tank, Conoco #9

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

2. To maintain status as a small producer, permittee's crude oil production shall average less than 6000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rules 3020 & 4623]

3. When this tank is not operated (dormant for Rule 4623), all liquids shall be removed and the produced crude oil inlet line shall be physically disconnected. [District Rule 2080]

4. Results of TVP test on material introduced to this tank upon reactivation shall be submitted to the District within 60 days of recommencing operation of this tank. [District Rule 2080]

5. Permittee shall notify the District at least seven (7) calendar days prior to recommencing operation. [District Rule 1076]

6. 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]

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

8. 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]


10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]

11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]

12. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]

14. 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]
ATTACHMENT III
Tank Calculations
### Tank Input Data

<table>
<thead>
<tr>
<th>Permit number (S-xxxx-xx-xx)</th>
<th>5-S1624-76-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility tank ID</td>
<td>3850019872</td>
</tr>
<tr>
<td>Location (e.g., 1: Bakerfield, 2: Fresno, 3: Stockton)</td>
<td>1</td>
</tr>
<tr>
<td>Tank HCl vapor pressure (psia)</td>
<td>0.5</td>
</tr>
<tr>
<td>Liquid bulk storage temperature, $T_b$ (°F)</td>
<td>100</td>
</tr>
<tr>
<td>Is this a constant-level tank? (yes, no)</td>
<td>No</td>
</tr>
<tr>
<td>Will flashing losses occur in this tank? (yes, no)</td>
<td>No</td>
</tr>
<tr>
<td>Breather vent pressure setting range (psia)</td>
<td>0.05</td>
</tr>
<tr>
<td>Diameter of tank (feet)</td>
<td>21.5</td>
</tr>
<tr>
<td>Capacity of tank (bbl)</td>
<td>8,910,099</td>
</tr>
<tr>
<td>Conical or dome roof? (c, d)</td>
<td>3</td>
</tr>
<tr>
<td>Shell height of tank (feet)</td>
<td>16</td>
</tr>
<tr>
<td>Average liquid height (feet)</td>
<td>9</td>
</tr>
<tr>
<td>Are the roof and shell the same color? (yes, no)</td>
<td>Yes</td>
</tr>
<tr>
<td>For roof color:</td>
<td>4</td>
</tr>
<tr>
<td>1: Good, 2: Poor</td>
<td>1</td>
</tr>
</tbody>
</table>

### Liquid Input Data

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum daily fluid throughput (bbl)</td>
<td>1,000</td>
</tr>
<tr>
<td>Maximum annual fluid throughput (bbl)</td>
<td>365,000</td>
</tr>
</tbody>
</table>

### Calculated Values

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily maximum ambient temperature, $T_a$ (°F)</td>
<td>77.6</td>
</tr>
<tr>
<td>Daily minimum ambient temperature, $T_a$ (°F)</td>
<td>53.1</td>
</tr>
<tr>
<td>Daily total solar radiation factor, $I_R$ (Btu/day)</td>
<td>1940.5</td>
</tr>
<tr>
<td>Atmospheric pressure, $P_a$ (psia)</td>
<td>14.47</td>
</tr>
<tr>
<td>Water vapor pressure at average liquid surface temperature $(T_a)$, $P_{voc}$ (psia)</td>
<td>99.0</td>
</tr>
<tr>
<td>Water vapor pressure at atmospheric pressure, $P_{voc}$ (psia)</td>
<td>0.9229</td>
</tr>
<tr>
<td>Vapor space volume, $V_v$ (cubic feet)</td>
<td>2622.69</td>
</tr>
<tr>
<td>Pori factor, $\alpha$</td>
<td>0.0593</td>
</tr>
<tr>
<td>Condensate liquid, $W_{c}$ (cubic feet)</td>
<td>0.0084</td>
</tr>
<tr>
<td>Daily temperature range, $\Delta T_v$ (degrees Rankine)</td>
<td>47.92</td>
</tr>
<tr>
<td>Vapor space expansion factor, $\kappa_v$</td>
<td>0.0093</td>
</tr>
</tbody>
</table>

### Results

| Standing Storage Loss | 832 |
| Working Loss | 16,250 |
| Flashing Loss | N/A |
| Total Uncontrolled Tank VOC Emissions | 19,082 |

### Summary Table

| Permit Number | S-1624-76-0 |
| Facility Tank ID | 99 |
| Tank capacity (bbl) | 1,000 |
| Tank diameter (ft) | 21.5 |
| Tank shell height (ft) | 16 |
| Conical or Dome Roof | Conical |
| Maximum Daily Fluid Throughput (bbl/day) | 1,000 |
| Maximum Annual Fluid Throughput (bbl/year) | 365,000 |
| Maximum Daily Oil Throughput (bbl/day) | 1,000 |
| Maximum Annual Oil Throughput (bbl/year) | 365,000 |
| Total Uncontrolled Daily Tank VOC Emissions (lb/day) | 32.3 |
| Total Uncontrolled Annual Tank VOC Emissions (lb/year) | 18,087 |
ATTACHMENT IV
Emissions Profiles
<table>
<thead>
<tr>
<th>Equipment Pre-Baselined: NO</th>
<th>NOX</th>
<th>SOX</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential to Emit (lb/Yr)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1423.0</td>
</tr>
<tr>
<td>Daily Emissions Limit (lb/Day)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Quarterly Net Emissions Change (lb/Quart)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>355.0</td>
</tr>
<tr>
<td>Q1:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>355.0</td>
</tr>
<tr>
<td>Q2:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>356.0</td>
</tr>
<tr>
<td>Q3:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>356.0</td>
</tr>
<tr>
<td>Q4:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>355.0</td>
</tr>
<tr>
<td>Check if offsets are triggered but exemption applies</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Offset Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarterly Offset Amounts (lb/Quart)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Pre-Baselined: NO</td>
<td>NOX</td>
<td>SOX</td>
<td>PM10</td>
<td>CO</td>
<td>VOC</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Potential to Emit (lb/Yr)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1423.0</td>
</tr>
<tr>
<td>Daily Emiss. Limit (lb/Day)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Quarterly Net Emissions Change (lb/Quatr)</td>
<td>Q1:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Q2:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Q3:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Q4:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Check if offsets are triggered but exemption applies</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Offset Ratio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarterly Offset Amounts (lb/Quatr)</td>
<td>Q1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q3:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q4:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ATTACHMENT V
BACT Guideline
San Joaquin Valley  
Unified Air Pollution Control District  

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

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

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>PV-vent set to within 10% of maximum allowable pressure</td>
<td>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).</td>
<td></td>
</tr>
</tbody>
</table>

**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 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*
ATTACHMENT VI
BACT Analysis

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

Applicant has submitted the capital cost (following this analysis) for a vapor control system to address the technologically feasible control option. The capital costs are

Compressor $46,654
Vapor recovery unit $15,000
Welding $10,000 ($18,500 quote for wash tank and 3 stock tanks)
Total $71,654
The annualized capital cost is

\[ AP = (P) \left\{ \frac{(1 + i)^n - 1}{(1 + i)^n} \right\}, \]  
where

\[ AP = \text{Equivalent Annual Capital Cost of Control Equip.} \]
\[ P = \text{Present value of the control equipment, including installation cost. $71,654} \]
\[ i = \text{interest rate (use 10\% per policy)} \]
\[ n = \text{equipment life (assume 10 years per policy)} \]

\[ AP = (P) \left\{ \frac{(0.1) (1 + 0.1)^{10} - 1}{(1 + 0.1)^{10} - 1} \right\} \]
\[ AP = (P) \times (0.16274) = ($71,654) \times (0.16274) = $11,658/\text{year} \]

**Maintenance Cost**

- $12,000 ($1000/mo contract)
- $4,800 (VRU Electric Cost)
- $2000 (annual seal replacement)

  Total = $18,800

Total annualized cost = $30,458/yr

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

2486 lb/yr + 2000 lb/ton = 1.24 ton/yr

Annualized cost = $30,458/yr/1.24 tons/yr
\[ = $24,562/\text{ton} \]

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
EB Resources Natural Resources  
34740 Merced Ave.  
Bakersfield, CA 93308  
Subject: Vapor Recovery Units  
At: Greg Youngblood  

2/05/12

Dear Mr. Youngblood,

Thank you for the opportunity to supply pricing on your VRU project.

We are offering skid mounted units with 40 HP, compressors, motors, belt drives, oilers, separator, pumps complete as your existing units, except with a second compressor & motor mounted on skid for full back up protection.

Price: One complete unit $ 48,654.00 plus frt.

If you need additional information, please contact us.

Respectfully

Doug Schofield, Sales
Mariott Welding Inc.

Estimated labor cost to fabricate and install six inch vapor recovery on wash tank & three stock tanks.

Including setting VRU compressor, scrubbers & discharge line to heater.

Labor $18,500

Dennis Mariott
Date: February 10, 2012

Submitted To: Greg Youngblood E&B Natural Resources

Work To Be Performed At: Vapor Recovery Unit

We hereby propose to furnish the materials and perform the labor necessary for the completion of:

Panel, disconnect, underground and labor for the vapor recovery unit

All material is guaranteed to be as specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work, and completed in a substantial workmanlike manner for the sum of Fifteen thousand thousand dollars ($15,000.00) with payments to be made as follows: progress payments

Respectfully Submitted,
Gold Coast Electric, Inc.

Michael C. Heinemann
President

Any alteration or deviation from above specifications involving extra costs will be executed only upon written order, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control.

Acceptance of Proposal
The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Date __________________________ Signature __________________________

Note – This proposal may be withdrawn by us if not accepted within ___30___ days
February 1, 2012

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

Subject:  Project Number 1120238 – (S-1624) Conoco & E&M Tank Additions  
Compliance Certification

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 an existing facilities. The applicant proposes to install tanks that will provide production capacity to existing operations at the site.

Since the project will provide production capacity 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.

Signature

Title

[Signature]

Project Manager
San Joaquin Valley Air Pollution Control District
Risk Management Review

To: Richard Edgehill – Permit Services
From: Yu Vu – Technical Services
Date: February 1, 2012
Facility Name: E & B Natural Resources
Location: Section 33, T27S, R27E (216-0), NW Section 2, T29S, R28E (217-0)
Application #: S-1624-216-0 and -217-0
Project #: S-1120238

A. RMR SUMMARY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Crude Oil Tank (Unit 216-0)</th>
<th>Crude Oil Tank (Unit 217-0)</th>
<th>Project Totals</th>
<th>Facility Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritization Score</td>
<td>0.00</td>
<td>0.00</td>
<td>0.08</td>
<td>0.96</td>
</tr>
<tr>
<td>Acute Hazard Index</td>
<td>N/A¹</td>
<td>N/A¹</td>
<td>N/A</td>
<td>0.73</td>
</tr>
<tr>
<td>Chronic Hazard Index</td>
<td>N/A¹</td>
<td>N/A¹</td>
<td>N/A</td>
<td>0.02</td>
</tr>
<tr>
<td>Maximum Individual Cancer Risk (10⁻⁶)</td>
<td>N/A¹</td>
<td>N/A¹</td>
<td>N/A</td>
<td>2.59</td>
</tr>
<tr>
<td>T-BACT Required?</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Permit Conditions?</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹This facility previously had a prioritization score greater than 1.0. However, due to cancelled and deleted projects, this facility's prioritization score has since dropped below 1.0. At the time of this evaluation, the facility's prioritization score remains below 1.0. Since this project's prioritization score does not cause the facility to exceed the 1.0 threshold, this project passes on prioritization and no further analysis is necessary.

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit #s 216-0 and 217-0

1) Upon implementing these two ATCs, the permit for unit S-1624-76 shall be cancelled.

B. RMR REPORT

I. Project Description

Technical Services received a request on January 31, 2012, to perform a Risk Management Review for a proposed installation of a two 2,000 BBL crude oil storage tanks. The applicant is also proposing to cancel the permit for unit S-1624-76.
ATTACHMENT IX
Draft ATCs
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-216-0
LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT
MAILING ADDRESS: ATTN: GREG YOUNGBLOOD
1600 NORRIS ROAD
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL
CA
SECTION: 33 TOWNSHIP: 27S RANGE: 27E

EQUIPMENT DESCRIPTION:
2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH PV VALVE (CONOCO LEASE)

CONDITIONS

1. Crude oil throughput shall not exceed 300 barrels per day based on a monthly average. [District Rules 2201 and 4623]
2. 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]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.1 psia under all storage conditions. [District Rules 2201 and 4623]
4. True vapor pressure and API gravity of liquids introduced, stored or held in the tank shall be measured 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 lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rules 2201 and 4623]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [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

DAVID WARNER, Director of Permit Services
S-1624-216-0 / Fax to 661-251-3246 / 630674 / AN REVISION REPORT

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. 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]


8. Operator shall submit the records of TVP and API gravity testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2201 and 4623]

9. 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 & 4623]

10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2201 and 4623]

11. PTO S-1624-76-1 shall be canceled upon implementation of this ATC. [District Rule 2201]
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1624-217-0
LEGAL OWNER OR OPERATOR: E&B NATURAL RESOURCES MGMT
ATTN: GREG YOUNGBLOOD
1600 NORRIS ROAD
BAKERSFIELD, CA 93308

LOCATION: HEAVY OIL CENTRAL
CA

SECTION: NW 2 TOWNSHIP: T29S RANGE: 28E

EQUIPMENT DESCRIPTION:
2000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH PV VALVE (E&M LEASE)

CONDITIONS

1. Crude oil throughput shall not exceed 300 barrels per day based on a monthly average. [District Rules 2201 and 4623]

2. 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]

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.1 psia under all storage conditions. [District Rules 2201 and 4623]

4. True vapor pressure and API gravity of liquids introduced, stored or held in the tank shall be measured 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 lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rules 2201 and 4623]

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [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 Sadrein, Executive Director APCO

David Warner, Director of Permit Services

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. 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]


8. Operator shall submit the records of TVP and API gravity testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2201 and 4623]

9. 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 & 4623]

10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2201 and 4623]

11. PTO S-1624-76-1 shall be canceled upon implementation of this ATC. [District Rule 2201]