



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

AUG 30 2010

Brad Califf
Longbow, LLC
1701 Westwind Drive, Suite 126
Bakersfield, CA 93301

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1102816

Dear Mr. Califf:

Enclosed for your review and comment is the District's analysis of Longbow, LLC's application for an Authority to Construct for the installation of two new crude oil storage tanks and modification of one existing tank at Heavy Oil Central Stationary Source.

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 Ms. Dolores Gough of Permit Services at (661) 392-5609.

Sincerely,

David Warner
Director of Permit Services

DW: DG/cm

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

AUG 30 2010

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-1102816**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Longbow, LLC's application for an Authority to Construct for the installation of two new crude oil storage tanks and modification of one existing tank at Heavy Oil Central Stationary Source.

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.

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AUG 30 2010

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-1102816**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Longbow, LLC's application for an Authority to Construct for the installation of two new crude oil storage tanks and modification of one existing tank at Heavy Oil Central Stationary Source.

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 Ms. Dolores Gough of Permit Services at (661) 392-5609.

Sincerely,

David Warner
Director of Permit Services

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Bakersfield Californian

**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 Longbow, LLC for the installation of two new crude oil storage tanks and modification of one existing tank, at Heavy Oil Central Stationary Source.

The analysis of the regulatory basis for this proposed action, Project #S-1102816, 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
Crude Oil Tanks

Facility Name: Longbow, LLC
Mailing Address: 1701 Westwind Drive
Bakersfield, CA 93301
Contact Person: Brad Califf
Telephone: 661-631-1717
Fax: 661-635-0412
E-Mail:
Application #(s): S-4080-15-1, '-28-0 and '-29-0
Project #: S-1102816
Deemed Complete: 6/29/2010

Date: August 20, 2010
Engineer: Dolores Gough
Lead Engineer: Richard Karrs
RWK
8-20-10

I. Proposal

Longbow, LLC is requesting Authority to Construct (ATC) permits for the installation of a 1,500 bbl fixed roof crude oil wash tank and a 1,000 bbl fixed roof crude oil stock tank. With this project, Longbow is also proposing to modify existing tank S-4080-15 by reducing the throughput from 1000 to 700 barrels/day.

Longbow is an existing major source of VOC emissions; however, does not have a Title V permit. The facility is currently designated as an exempt facility under Rule 2530, *Federally Enforceable Potential to Emit*.

Appendix A: Current PTO S-4080-15-0

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (12/18/08)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 2530 Federally Enforceable Potential to Emit (12/18/08)
Rule 4001 New Source Performance Standards (4/14/99) - Subpart Kb - **exempt** - tanks are less than 10,000 bbl in capacity and oil is stored prior to custody transfer
Rule 4102 Nuisance (12/17/92)
Rule 4623 Storage of Organic Liquids (5/19/05)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

Existing tank '-15 is located at the Tejon Lease in Section 28, Township 12N, Range 18W. New tanks '-28 and '-29 will be located within the Kern Front Oil Field in the SE Section 35, Township 27S, Range 27E. The equipment will not be located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Longbow operates a crude oil production facility within the Kern Front Oilfield. The tanks receive production consisting of a mixture of oil, water and gas from the oilfield. The oil is separated from the water and stored in stock tanks prior to transport via trucks to the next location.

V. Equipment Listing

- S-4080-15-1: MODIFICATION OF 1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (TEJON LEASE): REDUCE THROUGHPUT FROM 1,000 TO 700 BBL PER DAY
- S-4080-28-0: 1500 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL WASH TANK WITH PV VALVE (JUDKINS LEASE)
- S-4080-29-0: 1000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH PV VALVE (JUDKINS LEASE)

VI. Emission Control Technology Evaluation

The existing and new tanks will each be equipped with a pressure-vacuum (PV) relief 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 will emit only volatile organic compounds (VOCs)
- The tank paint condition is good, the color is gray and the shade is medium
- VOC molecular weight is 100 lb/lb-mole (assumed for crude oil)
- Pre- and post-project VOC emissions from tank '-15 (existing 1000 bbl stock tank) are based on a TVP of 0.5 psia and throughputs of 1000 bbl/day and 700 bbl/day, respectively.
- Tank '-28 will be operated as a constant level tank and VOC emissions are based on a TVP of 0.3 psia and 3,000 bbl/day throughput
- VOC emissions from tank S-29 (new stock tank) are based on a tvp of 0.2 psia and 50 bbl/day throughput.

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. The tank emissions calculations are included in Appendix B.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

S-4080-15-0: (From Appendix B)

Daily PE1: 51.9 lb-VOC/day

Annual PE1: 18,960 lb-VOC/day

S-4080-28-0 and '29-0:

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

2. Post Project Potential to Emit (PE2)

The post-project emissions calculations are in Appendix B and summarized in the following table:

Permit Unit	VOC - Daily PE2 (lb/day)	VOC - Annual PE2 (lb/Year)
S-4080-15-1	36.9	13,485
S-4080-28-0	1.1	402
S-4080-29-0	2.0	724
Total	40.0	14,611

Increase in Greenhouse Gas (as CO₂e):

VOC is assumed to be 85% of TOC (AP-42 Sec. 5.2); also assume 15% of TOC is CH₄ (methane) if site specific data is not available (2009 AP Compendium, E-6); and GWP for CH₄ is 23 lb-CO₂e/lb-CH₄ (District Poliy APR 2015):

$$\text{Therefore: CH}_4 = (\text{VOC}/0.85) \times 0.15$$

$$\text{Total CH}_4 \text{ from Tanks '28 and '29} = (402 + 724, \text{ lb/yr})/0.85 \times 0.15 = 199 \text{ lb/yr}$$

$$\begin{aligned} \text{CO}_2\text{e (Mton/yr)} &= \text{CH}_4 \text{ (lb/yr)} \times 1\text{-Mton}/2,200 \text{ lb} \times 23 \\ &= 199 \times 1/2,200 \times 23 \\ &= 2.1 \text{ Mton/yr} \end{aligned}$$

2.1 M-ton/yr < 230 M-ton CO₂e/yr

Per District Policy 2015, project specific greenhouse gas emissions less than or equal to 230 M-tons of CO₂e/yr are considered to be zero for District permitting purposes.

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. There are no ERCs that have been banked that occurred at this source.

The SSPE1 is from PAS and Project S-1093757 (last project to be finalized).

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-4080-11-0*	0	0	0	0	4,858
S-4080-12-0	0	0	0	0	19,052
S-4080-13-0	0	0	0	0	1,201
S-4080-14-0*	0	0	0	0	296
S-4080-15-0	0	0	0	0	18,960
S-4080-16-0	0	0	0	0	2,223
S-4080-17-0	0	0	0	0	3,163
S-4080-19-0*	0	0	0	0	3,033
S-4080-20-0	0	0	0	0	584
S-4080-22-0*	599	47	126	1398	92
S-4080-23-0	0	0	0	0	146
S-4080-24-0	0	0	0	0	37
S-4080-25-0	0	0	0	0	37
S-4080-26-0	584	37	110	1387	183
S-4080-27-0	2,048	687	1,831	17,827	1,325
Post Project SSPE (SSPE2)	3,231	771	2,067	20,612	54,740

* Project S-1082863 modified these emission units providing a net emissions reduction therefore offsets were not required for a steam generator.

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

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.

The SSPE2 will include the emissions change under the proposed ATCs for this project (in bold fonts) and shown in the table below:

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
PTO S-4080-11-0*	0	0	0	0	4,858
PTO S-4080-12-0	0	0	0	0	19,052
PTO S-4080-13-0	0	0	0	0	1,201
PTO S-4080-14-0*	0	0	0	0	296
ATC S-4080-15-1	0	0	0	0	13,485
PTO S-4080-16-0	0	0	0	0	2,223
PTO S-4080-17-0	0	0	0	0	3,163
ATC S-4080-19-0*	0	0	0	0	3,033
ATC S-4080-20-0	0	0	0	0	584
ATC S-4080-22-0*	599	47	126	1398	92
ATC S-4080-23-0	0	0	0	0	146
ATC S-4080-24-0	0	0	0	0	37
ATC S-4080-25-0	0	0	0	0	37
ATC S-4080-26-0	584	37	110	1387	183
ATC S-4080-27-0	2,048	687	1,831	17,827	1,325
ATC S-4080-28-0	0	0	0	0	402
ATC S-4080-29-0	0	0	0	0	724
Post Project SSPE (SSPE2)	3,231	771	2,067	20,612	50,391

* Project S-1082863 modified these emission units providing a net emissions reduction; therefore, offsets were not required for a steam generator.

5. Major Source Determination

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 3.24.2 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)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Pre-Project SSPE (SSPE1)	3,231	771	2,067	20,612	54,740
Post Project SSPE (SSPE2)	3,231	771	2,067	20,612	50,391
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	Yes

As seen in the table above, this source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants major source status 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.

Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, Section 3.12.2 a Clean Emissions Unit is defined as an emissions unit that 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.

S-4080-15: This unit is equipped with a PV vent, which is the achieved-in-practice BACT (Guideline 7.3.1 last updated 10/1/2002) for Fixed Roof Organic Liquid Storage or Processing Tank < 5,000 bbl tank capacity. Therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

$$BE = PE1 = 18,960 \text{ lb-VOC/yr}$$

S-4080-28 and -29: Since these are new emissions units, BE = PE1 = 0

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 (as in effect on Dec. 19, 2002) 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.*"

For the purposes of this definition, the SB 288 major modification thresholds for existing major sources are listed as follows:

SB 288 Major Modification Thresholds (lb/yr)				
	NOx	SOx	PM ₁₀	VOC
Net Project Increases	0	0	0	1,126*
Threshold	50,000	80,000	30,000	50,000
SB 288 Major Mod?	No	No	No	No

* see Section VII C(8)

As shown above, the project is not a significant increase and therefore does not constitute a SB 288 Major Modification.

8. Federal Major Modification

A Federal Major Modification is defined in 40 CFR Part 51.165 (as in effect on Dec. 19, 2002) 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."

Rule 2201 Section 3.17 states that an SB 88 Major Modification is not a Federal Major Modification if the emission increase for the project or the net emission increase for the facility (calculated pursuant to 40 CFR 51.165(a)(2)(ii)(B) through (D) does not result in a significant emission increase as defined in Rule 2201 Table 3-1 (shown below).

VOC Emissions Increase (EI) Calculations:

S-4080-15 (existing unit):

EI = PAE – BAE – unused baseline capacity emissions

where: PAE = projected actual emissions of the units (or post-project emissions, PE2)
BAE = baseline actual emissions

PAE = 13,485 lb/yr

BAE = 0 (per applicant the tank has been nearly idle for the last 10 years)

Unused baseline emissions = 18,960 lb/yr (assume PE1)

EI = 13,485 – 0 – 18,960 = 0 lb/yr (negative number)

S-4080-28 and ' - 29 (new units):

PAE = ∑ PE2 (units '-28 and '-29) = 402 + 724 = 1,126 lb/yr

BAE = 0 (new units)

EI = 1,126 lb/yr

Federal Major Modification Significance Thresholds (lb/yr)				
	NOx	SOx	PM ₁₀	VOC
Net Project Increases	0	0	0	1,126
Threshold	0	80,000	30,000	0
Federa Major Mod?	No	No	No	Yes

As shown in the above calculations, the project will result in an increase in VOC emissions greater than the Federal Major Modification threshold. Therefore, this project is a Federal Major Modification and the facility shall address alternative siting requirements pursuant to Section 4.15.1 of Rule 2201. Longbow provided an alternative siting analysis to comply with this requirement (Appendix C).

In addition, pursuant to Section 4.15.2, the owner of the proposed new major source or federal major modification shall demonstrate to the satisfaction of the APCO that all major stationary sources owned or operated by such person (or 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 limitations and standards. Longbow provided verification that all major Stationary Sources owned or operated by Longbow in California are in compliance or on a schedule for compliance with all applicable emission limitations and standards (Appendix C).

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. QNEC calculations are included below:

Quarterly Post-Project VOC Emissions					
Permit Unit	PE2 (lb/yr)	Quarterly PE2 (lb/qtr)	BE (lb/yr)	Quarterly BE (lb/qtr)	QNEC (lb/qtr)
S-4080-15-1	13,485	3,371	18,960	4,740	-1,369
S-4080-28-0	402	101	0	0	101
S-4980-29-0	724	181	0	0	181

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 for the following*:

- 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 directed in this 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 of this evaluation, the applicant is proposing to install two new tanks with a PE of 1.1 and 2 lb/day for VOC. Since the PE for each unit is less than 2.0 lb/yr, BACT is not triggered for new emissions units.

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

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

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

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

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

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

HAPE = Historically Adjusted Potential to Emit, (lb/day)

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

Where,

PE1 = The emissions unit's Potential to Emit prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

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

S-4080-15-1:

$$\begin{aligned} \text{AIPE} &= 36.9 - (51.9 * (1)) \\ &= 0.0 \text{ lb/day (negative)} \end{aligned}$$

As demonstrated above, the AIPE is not greater than 2.0 lb/day for VOC emissions from existing unit '15.

d. Major Modification

As discussed in Section VII.C.7 above, this project does constitute a Federal Major Modification for VOC emissions; therefore, BACT is triggered for VOC for Federal Major Modification purposes.

2. BACT Guideline

BACT Guideline 7.3.1, applies Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank, <5,000 bbl Tank capacity (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 (Appendix D), BACT has been satisfied with the following:

VOC: PV-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.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Post Project SSPE (SSPE2)	3,231	771	2,067	20,612	50,391
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for VOC and the SSPE2 is greater than the offset thresholds; therefore, offset calculations are required for this project.

Per Sections 4.7.1 and 4.7.3, 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

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from the subject units are equal to the Pre-Project Potential to Emit (PE1).

$$\Sigma BE = 18,960 + 0 + 0 = 18,960 \text{ lb-VOC/yr}$$

As calculated in Section VII.C.2, the post-project Potential to Emit from the subject units are:

$$\Sigma PE2 = 13,485 + 402 + 724 = 14,611 \text{ lb-VOV/yr}$$

Distance offset ratio (DOR) = 1.5 (assume worst case)

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

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([14,611 - 18,960] + 0) \times 1.5 \\ &= 0 \text{ lb VOC/year (negative)} \end{aligned}$$

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

C. Public Notification

1. Applicability

Public noticing is required for:

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

As shown in Section VII.C.8, this project constitutes a Federal Major Modification; therefore, public noticing is required.

- b. Any new emissions unit with a Potential to Emit greater than 100 lb/day for any one affected pollutant

As calculated in Section VII.C.2, daily emissions for all pollutants are less than 100 lb/day.

- c. Any modifications that increase the SSPE1 above offset threshold levels

As shown in Section VII.C.3, SSPE1 is already greater than the offset threshold; therefore, an offset threshold will not be surpassed and public noticing is not required.

- d. Any new stationary source with SSPE2 exceeding the emissions offset threshold level

This is an existing facility; therefore, public noticing for new stationary source exceeding offset threshold purposes is not required.

- e. Any project with a Stationary Source Project Increase in Potential (SSIPE) Emissions greater than 20,000 lb/year for any 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:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	50,391	54,740	-4,349	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.

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

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-4080-15:

- *Crude oil throughput shall not exceed 700 bbl per day based on a monthly average. [District Rule 2201]*
- *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]*

S-4080-28:

- *Crude oil throughput shall not exceed 3,000 bbl per day based on a monthly average. [District Rule 2201]*
- *This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.3 psia under all storage conditions. [District Rules 2201 and 4623]*
- *Tank shall operate only at constant level. [District Rule 2201]*

S-4080-29:

- *Crude oil throughput shall not exceed 50 bbl per day based on a monthly average. [District Rule 2201]*
- *This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.2 psia under all storage conditions. [District Rules 2201 and 4623]*

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. The following conditions will be placed on the ATCs:

- *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] N*
- *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] N*
- *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] N

- *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] N*

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) will appear on the permit to operate:

- *Th permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]*
- *Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]*
- *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]*

4. Reporting

There are no reporting requirements.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD evaluated the project and has determined that VOCs are not a pollutant that is reviewed as part of the AAQA process. Therefore, no AAQA was required or performed (Appendix E)

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. Pursuant to Rule 2520 Section 5.1, and as required by permit condition, the facility will have up to 12 months from the date of ATC issuance to either submit a Title V Application or comply with District Rule 2530 *Federally Enforceable Potential to Emit*.

Rule 2530 Federally Enforceable Potential to Emit

This rule restricts potential emissions from facilities that are classified as a major source but can demonstrate that actual emissions meet the requirements in Section 6.0 and are below Rule 2520 emission limits. The requirements of this rule are met by restricting the emissions to less than 5 ton/yr NO_x or VOC, 50 ton/yr CO, and 35 ton/yr PM₁₀ or SO_x. The operator must keep records to verify compliance with this rule. The facility will demonstrate compliance with this requirement on an annual basis or will apply for a Title V permit within the allowable time.

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.

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project (Appendix E), the total facility prioritization score including this project was less than or equal to one. Therefore, no future analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

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.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix E of this report, the emissions increases for this project was determined to be less than significant.

California Health & Safety Code 42301.6 (School Notice)

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

Rule 4623 Storage of Organic Liquids

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

Section 4.4 states that 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. The facility is currently a small producer and will remain a producer. Conditions on small producer requirements, TVP testing, and recordkeeping will be placed on the ATCs to ensure compliance with this rule.

California Environmental Quality Act (CEQA)

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.

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.

Per District Policy, project specific greenhouse gas emissions less than or equal to 230 metric tons-CO₂e/year are considered to be zero for District permitting purposes and are exempt from further environmental review.

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 Authority to Construct permits S-4080-15-1, '-28-0 and '-29-0 subject to the permit conditions on the attached draft Authority to Construct in Appendix F.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-4080-15-1	3020-05S-C	42,000 gal	\$63.00
S-4080-28-0	3020-05S-D	63,000 gal	\$75.00
S-4080-29-0	3020-05S-C	42,000 gal	\$63.00

Appendices

- A: Current PTO(s)
- B: PE Calculations
- C: Siting Analysis & Compliance Certification
- D: BACT Guideline and Analysis
- E: HRA Summary
- F: Draft ATC(s) and Emissions Profile

APPENDIX A

Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4080-15-0

EXPIRATION DATE: 03/31/2013

SECTION: 28 TOWNSHIP: 12N RANGE: 18W

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (TEJON LEASE)

PERMIT UNIT REQUIREMENTS

- ✓ 1. 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 Rule 4623, 3.29]
- ✓ 2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- ✓ 3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
- ✓ 4. 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]
- ✓ 5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
- ✓ 6. 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]
- ✓ 7. 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]
- ✓ 8. 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]
9. 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]
10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. ~~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]

2490

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

11. Small producers shall maintain monthly records of average daily crude oil production to determine compliance with Section 3.25, and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. The monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to comply with the above requirement. Small producers shall also maintain monthly records of the average daily crude oil throughput of each tank to demonstrate compliance with Sections 4.4 and 5.1.2 of Rule 4623. [District Rule 4623]

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

APPENDIX B

PE Calculations

S-4080-15: 1,000 bbl Stock - one turnover/day

Pre-project

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-4080-15
facility tank I.D.	S-4080
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)	21.4
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

1,027

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		1,000
maximum annual fluid throughput (bbl)		365,000
----- This row only used if flashing losses occur in this tank-----		1,000
----- This row only used if flashing losses occur in this tank-----		365,000
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 insolation 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)	93.8	0.7903
roof outage, H _{ro} (feet)		0.2229
vapor space volume, V _v (cubic feet)		2238.26
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	710	1.94
Working Loss	18,250	50.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	18,960	51.9

Summary Table	
Permit Number	S-4080-15
Facility Tank I.D.	S-4080
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.4
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)	---
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	51.9
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	18,960

542

S-4080-15: 1,000 bbl Stock - 700 bopd

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-4080-15
facility tank I.D.	S-4080
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)	21.4
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

Post

1,027

Liquid Input Data		
	A	B
maximum daily fluid throughput (bbl)		700
maximum annual fluid throughput (bbl)		255,500
-----This row only used if flashing losses occur in this tank-----		700
-----This row only used if flashing losses occur in this tank-----		255,500
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)		0.2229
vapor space volume, V _v (cubic feet)		2238.26
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	710	1.94
Working Loss	12,775	35.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	13,485	36.9

Summary Table	
Permit Number	S-4080-15
Facility Tank I.D.	S-4080
Tank capacity (bbl)	1,000
Tank diameter (ft)	21.4
Tank shell height (ft)	16
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	700
Maximum Annual Fluid Throughput (bbl/year)	255,500
Maximum Daily Oil Throughput (bbl/day)	700
Maximum Annual Oil Throughput (bbl/year)	---
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	36.9
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	13,485

1,500 bbl Wash Tank - Judkins Lease

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-4080-XX
facility tank I.D.	
nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)	1
tank ROC vapor pressure (psia)	0.3
liquid bulk storage temperature, T _b (°F)	180
is this a constant-level tank? (yes, no)	yes
will flashing losses occur in this tank (only if first-line tank)? (yes, no)	yes
breather vent pressure setting range (psi)	0.06
diameter of tank (feet)	21.2
capacity of tank (bbl)	1,500
conical or dome roof? (c, d)	c
shell height of tank (feet)	24
average liquid height (feet)	22
are the roof and shell the same color? (yes, no)	yes
For roof:	
color (1: Spec Al, 2: Diff Al, 3: Light, 4: Med, 5: Red, 6: White)	4
condition (1: Good, 2: Poor)	1
-----This row only used if shell is different color from roof-----	
-----This row only used if shell is different color from roof-----	

-28

1,512
1500

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		3,000
maximum annual fluid throughput (bbl)		1,095,000
maximum daily oil throughput (bbl)(used to calculate flashing loss)		50
maximum annual oil throughput (bbl)(used to calculate flashing loss)		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)	143.8	3.2094
(psia)	133.0	2.4283
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	138.4	2.7876
roof outage, H _{ro} (feet)		0.2208
vapor space volume, V _v (cubic feet)		783.93
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0047
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1437

Results	lb/year	lb/day
Standing Storage Loss	192	0.53
Working Loss	N/A	N/A
Flashing Loss	210	0.57
Total Uncontrolled Tank VOC Emissions	402	1.10

Summary Table	
Permit Number	S-4080-XX
Facility Tank I.D.	---
Tank capacity (bbl)	1,500
Tank diameter (ft)	21.2
Tank shell height (ft)	24
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	3,000
Maximum Annual Fluid Throughput (bbl/year)	1,095,000
Maximum Daily Oil Throughput (bbl/day)	50
Maximum Annual Oil Throughput (bbl/year)	18,250
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.10
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	402

1,000 bbl Stock Tank - Judkins Lease

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-4080-XX
facility tank I.D.	
nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)	1
tank ROC vapor pressure (psia)	0.2
liquid bulk storage temperature, T _b (°F)	180
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-----	
-----This row only used if shell is different color from roof-----	

-29

1,008
1000

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-----		
-----This row only used if flashing losses occur in this tank-----		
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 insolation factor, I (Btu/ft ² -day)		1648.9
atmospheric pressure, P _a (psia)		14.47
(psia)	143.8	3.2094
(psia)	133.0	2.4283
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	138.4	2.7876
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)		0.0031
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1437

Results	lb/year	lb/day
Standing Storage Loss	359	0.98
Working Loss	365	1.00
Flashing Loss	N/A	N/A
Total Uncontrolled Tank VOC Emissions	724	1.98

Summary Table	
Permit Number	S-4080-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)	0
Maximum Annual Oil Throughput (bbl/year)	---
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	1.98
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	724

APPENDIX C

Siting Analysis & Compliance Certification

Longbow, LLC

1701 Westwind Drive, Suite 126
Bakersfield, CA 93301

RECEIVED
JUL 20 2010
SJVAPCD
Southern Region

July 6, 2010

Ms. Robert Rinaldi
San Joaquin Valley Unified APCD
34946 Flyover Court
Bakersfield, CA 93308

Subject: Project S-1102816 – Judkins Stock/Wash

Dear Mr. Rinaldi:

Please find enclosed the following supplemental information for the ATC for a new stock and wash tank at the Judkins Lease:

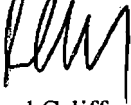
- **BACT Cost Effectiveness Analysis** – attached
- **Alternate Siting** – Longbow, LLC. is an oil producer. Based on the location of the limited natural resource, Longbow has designed a facility to efficiently extract the oil from below the earth's surface.

Alternative sites would involve either pumping the produced fluid directly from the wells into trucks or piping the fluid to another tank battery. Trucking of the produced fluid, which includes the oil, water, and any associated gas would not be a feasible option due to the 24 hour per day production and volume of produced water. Piping changes would include additional stationary pumps to pipe the fluid to the nearest existing Longbow facility. Land use rights, stream/river crossings, and other logistical issues make this an impractical solution. Both of these alternate scenarios and the associated relocation and/or construction of various support structures would result in a much greater impact on air emissions.

- Longbow, LLC. is the owner of the proposed major modification. For the purposes of this ATC, the facility is not challenging the major modification classification. As such, Longbow, LLC. is verifying that all major Stationary Sources owned or operated by Longbow in California are in compliance or on a schedule for compliance with all applicable emission limitations and standards.

If you have any questions or need further information, please feel free to call me at (661) 631-1717 or Scott Faulkenburg at (661) 377-0073.

Sincerely,

A handwritten signature in black ink, appearing to read 'BCaliff', written over a horizontal line.

Brad Califf
President

cc: Scott Faulkenburg

APPENDIX D

BACT Guideline and Analysis

[Per » B A C T » Bact Guideline.asp?category Level1=7&category Level2=3&category Level3=1&last Update=10 » 1 :](#)

[Back](#)

[Details Page](#)

**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 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 - Permit Specific BACT Determinations on [Details Page](#).

Top-Down BACT Analysis for VOC

Step 1 - Identify All Possible Control Technologies

BACT Guideline 7.3.1 lists the controls applicable to Petroleum and Petrochemical Production- Fixed Roof Organic Liquid Storage or Processing tanks of <5,000 bbl tank capacity. The VOC control measures are as follows:

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

Achieved in Practice: PV relief valve set to within 10% of maximum allowable pressure.

Step 2 - Eliminate Technologically Infeasible Options

All of the above identified control options are technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

Step 4 - Cost Effectiveness Analysis

The annualized cost is determined by adding the annualized capital cost to the annual operating costs as shown below.

$$A = \frac{P \cdot i \cdot (i+1)^n}{(i+1)^n - 1} + \text{Annual operating cost}$$

Where:

A = Annual Cost

P = Present Value

i = Interest Rate (10%)

n = Equipment (10 years)

The capital cost of the equipment and installing the equipment is \$51,200

The annual maintenance cost = \$12,000

The annual seal replacement = \$4,000

Therefore, the annualized cost of the purchase and installation is:

$$A = \frac{\$51,200 \cdot 0.1 \cdot (0.1+1)^{10}}{(0.1+1)^{10} - 1} + \$12,000 + \$4000$$

$$A = \$24,352$$

To compare the price-per-ton-of-emissions-reduced, the annualized cost figure is divided by the number of tons of year reduced.

Tons reduced = PE2 x (99%)

Tons Reduced = 1,126 lb/year x 99% ÷ 2,000 lb/ton

Tons Reduced = 0.557 tons

Cost per ton reduced = \$24,352 ÷ 0.557 tons = \$43,720 per ton

Since this figure is above the cost-effectiveness threshold of \$17,500/ton, the vapor control system is not required for this project.

5 - Select BACT

The remaining option is achieved-in-practice BACT and will be required for this new tank.

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

APPENDIX E

HRA and AAQA Analysis

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Robert Rinaldi, AQE – Permit Services
 From: Jennifer Hart, AQS – Technical Services
 Date: July 8, 2010
 Facility Name: Longbow, LLC
 Location: Heavy Oil Central
 Application #(s): S-4080-15-1, 28-0 and 29-0
 Project #: S-1102816

RECEIVED
JUL -9 2010
 SJVAPCD
 Southern Region

A. RMR SUMMARY

RMR Summary			
Categories	Tanks (Units 15-1, 28-0 & 29-0)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	0.066
Acute Hazard Index	NA ¹	NA ¹	NA ¹
Chronic Hazard Index	NA ¹	NA ¹	NA ¹
Maximum Individual Cancer Risk (10 ⁻⁶)	NA ¹	NA ¹	NA ¹
T-BACT Required?	No		
Special Permit Conditions?	No		

1. Cancer risk, Acute and Chronic Hazard Indices were not calculated since the prioritization score was less than 1.0

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 15-1, 28-0 & 29-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on June 28, 2010, to perform a Risk Management Review for a proposed installation of one crude oil wash tank and one crude oil storage tank. There is also a modification to reduce the throughput of an existing crude oil storage tank. Since the throughput of 15-1 is being reduced, this unit will not be considered in this analysis and therefore contribute to the risk.

II. Analysis

Toxic emissions for this proposed units were calculated using District approved oil field equipment emission factors. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905, March 2, 2001), risks from the proposed units' toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEARTs database. The prioritization score for this proposed unit was less than 1.0 (see RMR Summary Table). Therefore, no further analysis was necessary.

The following parameters were used for the review:

Analysis Parameters Unit 28-0			
VOC Emission Rate (lb/hr)	0.046	Max Hours per Year	8760
VOC Emission Rate (lb/yr)	402	Closest Receptor (m)	681.6

Analysis Parameters Unit 29-0			
VOC Emission Rate (lb/hr)	0.083	Max Hours per Year	8760
VOC Emission Rate (lb/yr)	724	Closest Receptor (m)	681.6

III. Conclusion

The prioritization score is less than 1.0. In accordance with the District's **Risk Management Policy**, the project is approved without Toxic Best Available Control Technology (T-BACT).

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

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.

Attachments:

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

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Dolores Gough – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: August 9, 2010
 Facility Name: Longbow, LLC
 Location: Heavy Oil Central
 Application #(s): S-4080-28-0 & 29-0
 Project #: S-1102816

RECEIVED
 AUG 10 2010
 SJVAPCD
 Southern Region

A. RMR SUMMARY

RMR Summary			
Categories	VOC Fugitive Emissions from Oil Tanks (Units 28-0 & 29-0)	Project Totals	Facility Totals
Prioritization Score	N/A*	N/A*	N/A
Acute Hazard Index	N/A	N/A	N/A
Chronic Hazard Index	N/A	N/A	N/A
Maximum Individual Cancer Risk	N/A	N/A	N/A
T-BACT Required?	No		
Special Permit Conditions?	No		

*This RMR request was for only an Ambient Air Quality Analysis (AAQA) to be performed. Therefore, no RMR was performed or required for this project request.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 9, 2010, to perform an Ambient Air Quality Analysis (AAQA) only for VOC emissions from two oil tanks. The Risk Management Review (RMR) has already been performed for this project. Therefore, a RMR is not required at this time.

II. Analysis

Technical Services was asked to perform Ambient Air Quality Analysis modeling for VOC emissions from the project. However, VOCs are not a pollutant that is reviewed as part of the AAQA process. Therefore, no Ambient Air Quality Analysis was required or performed.

III. Conclusions

An Ambient Air Quality Analysis was not required or performed for this project.

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

Draft ATCs and Emissions Profiles

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-4080-15-1

LEGAL OWNER OR OPERATOR: LONGBOW, LLC.
MAILING ADDRESS: 1701 WESTWIND DRIVE, SUITE 126
BAKERSFIELD, CA 93301

LOCATION: HEAVY OIL CENTRAL
SE S 35, T27S, R27E

SECTION: 28 TOWNSHIP: 12N RANGE: 18W

EQUIPMENT DESCRIPTION:
MODIFICATION OF 1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (TEJON LEASE); REDUCE THROUGHPUT FROM 1,000 TO 700 BBL/DAY

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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 and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rule 2201]
3. 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]
4. Crude oil throughput shall not exceed 700 bbl per day based on a monthly average. [District Rule 2201]
5. {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 Rule 4623].
6. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]

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-4080-15-1 ; Aug 23 2010 12:00PM - GOUGHD : Joint Inspection Required with GOUGHD

7. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
8. 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]
9. 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 Rule 4623]
10. 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]
11. Permittee shall maintain monthly records of average daily crude oil production to determine compliance with crude oil throughput limit and small producer status, and shall submit such information to the APCO upon request. The monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to comply with the above requirement. [District Rules 2201 and 4623]
12. 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-4080-28-0

LEGAL OWNER OR OPERATOR: LONGBOW, LLC.
MAILING ADDRESS: 1701 WESTWIND DRIVE, SUITE 126
BAKERSFIELD, CA 93301

LOCATION: HEAVY OIL CENTRAL
SE S 35, T27S, R27E

SECTION: SE35 TOWNSHIP: 27S RANGE: 27E

EQUIPMENT DESCRIPTION:
1500 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL WASH TANK WITH PV VALVE (JUDKINS LEASE)

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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 and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.3 psia under all storage conditions. [District Rules 2201 and 4623]
4. Tank shall operate only at constant level. [District Rule 2201]
5. {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 Rule 4623]
6. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-4080-28-0 : Aug 23 2010 12:00PM - GOUGHD : Joint Inspection Required with GOUGHD

7. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
8. 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]
9. 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 Rule 4623]
10. 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]
11. Permittee shall maintain monthly records of average daily crude oil production to determine compliance with small producer status and shall submit such information to the APCO upon request. The monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to comply with the above requirement. [District Rule 4623]
12. 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-4080-29-0

LEGAL OWNER OR OPERATOR: LONGBOW, LLC.
MAILING ADDRESS: 1701 WESTWIND DRIVE, SUITE 126
BAKERSFIELD, CA 93301

LOCATION: HEAVY OIL CENTRAL
SE S 35, T27S, R27E

SECTION: SE35 TOWNSHIP: 27S RANGE: 27E

EQUIPMENT DESCRIPTION:
1000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH PV VALVE (JUDKINS LEASE)

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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 and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.2 psia under all storage conditions. [District Rules 2201 and 4623]
4. Crude oil throughput shall not exceed 50 bbl per day based on a monthly average. [District Rule 2201]
5. {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 Rule 4623]
6. {2482} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-4080-29-0 : Aug 23 2010 12:00PM - GOUGHD : Joint Inspection Required with GOUGHD

7. {2483} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
8. 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]
9. 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 Rule 4623]
10. 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]
11. Permittee shall maintain monthly records of average daily crude oil production to determine compliance with crude oil throughput limit and small producer status, and shall submit such information to the APCO upon request. The monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to comply with the above requirement. [District Rules 2201 and 4623]
12. 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

Permit #: S-4080-15-1	Last Updated
Facility: LONGBOW, LLC.	08/10/2010 GOUGHD

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	13485.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	36.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	-1369.0
Q2:	0.0	0.0	0.0	0.0	-1369.0
Q3:	0.0	0.0	0.0	0.0	-1369.0
Q4:	0.0	0.0	0.0	0.0	-1369.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-4080-28-0	Last Updated
Facility: LONGBOW, LLC.	08/10/2010 GOUGHD

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	402.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	1.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	101.0
Q2:	0.0	0.0	0.0	0.0	101.0
Q3:	0.0	0.0	0.0	0.0	101.0
Q4:	0.0	0.0	0.0	0.0	101.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-4080-29-0	Last Updated
Facility: LONGBOW, LLC.	08/10/2010 GOUGH

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	724.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	2.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	181.0
Q2:	0.0	0.0	0.0	0.0	181.0
Q3:	0.0	0.0	0.0	0.0	181.0
Q4:	0.0	0.0	0.0	0.0	181.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					