



MAR 21 2016

Mr. Zachary Dransoff
California Resources Production Corporation
9600 Ming Ave, Suite 300
Bakersfield, CA 93311

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1327
Project # 1154097**

Dear Mr. Dransoff:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes two crude oil storage tanks.

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

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

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

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

1,589.874 m³ (≤ 420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer. The capacity of these tanks is ≤ 420,000 gallons, and they store crude oil prior to custody transfer; therefore, this subpart does not apply to the tanks in this project.

Subpart OOOO (Adopted 8/16/2012) - Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution.

- Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04) – **not applicable** - The facility is not a Major HAP Source. Therefore, the requirements of this regulation do not apply.
- Rule 4101 Visible Emissions (04/20/05)
- Rule 4102 Nuisance (12/17/92)
- Rule 4623 Storage of Organic Liquids (05/19/05)
- CH&SC 41700 Health Risk Assessment
- CH&SC 42301.6 School Notice
- Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
- California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The crude oil storage tanks will be located at various locations at the Chico Martinez production facility within the heavy oil western stationary sources at Section 1, T29S, R20E which is not 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.

A project location map is included in **Attachment I**.

IV. Process Description

The proposed tanks receive production from the oil field prior to custody transfer.

V. Equipment Listing

S-1327-255-0: TRANSPORTABLE 500 BBL CRUDE OIL STORAGE (BAKER STYLE) TANK TO BE OPERATED AT VARIOUS LOCATIONS AT THE CHICO MARTINEZ LEASE WITHIN CALIFORNIA RESOURCE PRODUCTION CORPORATION'S HEAVY OIL WESTERN STATIONARY SOURCE

S-1327-256-0: TRANSPORTABLE 500 BBL CRUDE OIL STORAGE (BAKER STYLE) TANK TO BE OPERATED AT VARIOUS LOCATIONS AT THE CHICO MARTINEZ LEASE WITHIN CALIFORNIA RESOURCE PRODUCTION CORPORATION'S HEAVY OIL WESTERN STATIONARY SOURCE

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),
- TVP of liquid = 0.1 psia (Applicant, see laboratory analysis in **Attachment II**)
- Tank temperature, 90° F
- Tank throughput, 60 bbl/day
- VOCs molecular weight, 100 lb/lbmol (District standard and proposed)

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 located in **Attachment III**. The spreadsheet for tanks was developed using the equations for fixed-roof tanks from EPA AP-42, Chapter 7.1.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since the proposed tanks are new emissions units, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

S-1327-255 and '-256 (each)

VOCs: 0.8 lb/day, 300 lb/yr

Greenhouse Gas (GHG) Emissions

Crude oil stored in the proposed tanks is not a GHG. Therefore, no GHG emissions are expected.

Emissions profiles are included in **Attachment IV**.

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

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been

banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Applicant stipulates that the pre-project, facility-wide VOC emissions exceed both the offset threshold for VOC's (20,000 lb VOC/ yr) and the Major Source threshold for VOC's (20,000 lb VOC/ yr). No other pollutants are emitted by this project; therefore, SSPE1 calculations for these pollutants are not necessary.

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

As noted above, the applicant is an existing Major Source for VOC's, and the facility-wide VOC emissions already exceed the offset threshold for VOC's. The Applicant is therefore not becoming a Major Source for VOC's as a result of this project. No other pollutants are emitted by this project; therefore, no SSPE2 calculations for these pollutants are necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Source S-1327 is an existing Major Source for VOC emissions and will remain Major Sources for VOCs. No change in other pollutants are proposed or expected as a result of this project.

Rule 2410 Major Source Determination:

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase*	76	64	40	210	36	36
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

*SSPE calculator 2-13-16

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

S-1327-255-0 and '-256-0:

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

7. SB 288 Major Modification

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	0	50,000	No
SO _x	0	80,000	No
PM ₁₀	0	30,000	No
VOC	600	50,000	No

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

8. Federal Major Modification

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

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

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	0	0	No
VOC*	600	0	Yes
PM ₁₀	Na	30,000	No
PM _{2.5}	Na	20,000	No
SO _x	Na	80,000	No

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

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

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- Hydrogen sulfide (H₂S)
- Total reduced sulfur (including H₂S)
- Reduced sulfur compounds

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Total PE from New and Modified Units	0	<1	0	0	0	0
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - BE, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/qtr.

As the tanks are new QNEC = PE2/4
= 300/4
= 75 lb/qtr.

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 new crude oil storage tanks with a PE less than 2 lb/day for VOC. BACT is not triggered for new emissions unit purposes.

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

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

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

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

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC emissions for Federal Major Modification purposes.

2. BACT Guideline

BACT Guideline 7.3.1, applies to Petroleum and Petrochemical Production – Fixed Roof Organic Liquid Storage or Processing Tank < 5000 bbl in capacity (**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

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

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

Offset Determination (lb/year)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE2*	--	--	--	--	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets calculations required?	No	No	No	No	Yes

*VOCs only are emitted

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOCs, the only affected pollutant in the project. Therefore offset calculations will be required for this project.

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

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

The facility is proposing to install a new emissions unit; therefore BE = 0. Also, there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

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

$$\text{PE2} = 600 \text{ lb/yr, BE} = 0, \text{ICE} = 0, \text{DOR} = 1.5 \text{ (Federal Major Modification)}$$

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR} \\ &= 600 \times 1.5 \\ &= 900 \text{ lb/yr (225 lb/qtr)} \end{aligned}$$

The applicant has stated that the facility plans to use ERC certificate S-4258-1 to offset the increases in VOC emissions associated with this project. The following quantities have been reserved for the project:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #S-4258-1	0	675*	225*	0

*District Rule 2201, Section 4.13.8 states that AER (ERCs) for NOx and VOC that occurred from April through November (2nd and 3rd Quarters) may be used to offset increases in NOx and VOC during any period of the year.

For each tank the offset requirements is 450 lb/yr or 112.5 lb/qtr.

As shown in the calculation above, the quarterly amount of offsets required for each tank, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>	<u>Total Annual</u>
112	112	113	113	450

Proposed Rule 2201 (offset) Conditions:

S-1327-255-0 and '-256-0 (each)

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 112 lb, 2nd quarter - 112 lb, 3rd quarter - 113 lb, and fourth quarter - 113 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- {GC# 1983} ERC Certificate Number S-4258-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

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

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

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

As demonstrated in Sections VII.C.7 and VII.C.8, this project is a Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. PE > 100 lb/day

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

c. Offset Threshold

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x			20,000 lb/year	No
SO _x			54,750 lb/year	No
PM ₁₀			29,200 lb/year	No
CO			200,000 lb/year	No
VOC	>20,000	>20,000	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x			0	20,000 lb/year	No
SO _x			0	20,000 lb/year	No
PM ₁₀			0	20,000 lb/year	No
CO			0	20,000 lb/year	No
VOC	>20,000	>20,000	600	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, the project is a Federal Major Modification. Public noticing is required.

D. Daily Emissions Limits (DEL)

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

For fixed-roof organic liquid storage tanks the DEL is expressed as throughput and true vapor pressure (TVP) permit limits.

Tank throughput shall not exceed 60 bbls per day based on a monthly average. [District Rule 2201] Y

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] Y

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required for 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 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 Rule 2201] 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 Rule 2201] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. There is no air quality standard for VOCs and therefore an AAQA is not required.

G. Compliance Certification

The compliance certification is required for any project, which constitutes a New Major Source or a Federal Major Modification.

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this project does constitute a Federal, therefore this requirement is applicable. Included in **Attachment VII** is the Compliance Certification Statement.

H. Alternate Siting Analysis

The current project occurs at an existing facility. Since the new tank will be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

As demonstrated above this project will not result in a significant increase in emissions; therefore, Rule 2410 does not apply.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a “permit amendment that does not qualify as a minor permit modification or administrative amendment.”

The project is Federal Major Modification and therefore is also a Title V Significant Modification. As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Included in **Attachment VII** are CRPC’s Title V Compliance Certification forms. Continued compliance with this rule is expected.

Rule 4001 New Source Performance Standards

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

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

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

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

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-1326-255-0 and '-256-0	5.63 E-11	No

Discussion of T-BACT

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

Rule 4623 - Storage of Organic Liquids

Section 5.0 requires a pressure vacuum relief valve and leak-free conditions for storage of organic material in tanks less than 19,800 gallon in capacity and a tvp range of 0.5 psia to 11 psia. The following conditions are included on the ATCs:

Tank shall be equipped with pressure/vacuum valve set to within 10 percent of the maximum working pressure of the tank. [District Rules 2201 and 4623] Y

Tank shall be in a leak-free condition. A Leak-Free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 (amended May 19, 2005). A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minutes. [District Rules 2201 and 4623] Y

Tank throughput shall not exceed 60 bbls per day based on a monthly average. [District Rule 2201] Y

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] Y

Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 1070 and 2201] Y

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

Therefore, compliance of this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

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

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 a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's significance thresholds for criteria pollutants. The District has determined that no additional findings are required (CEQA Guidelines §15096(h)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs S-1327-255-0 and S-1327-256-0 subject to the permit conditions on the attached draft ATC in **Attachment IX**.

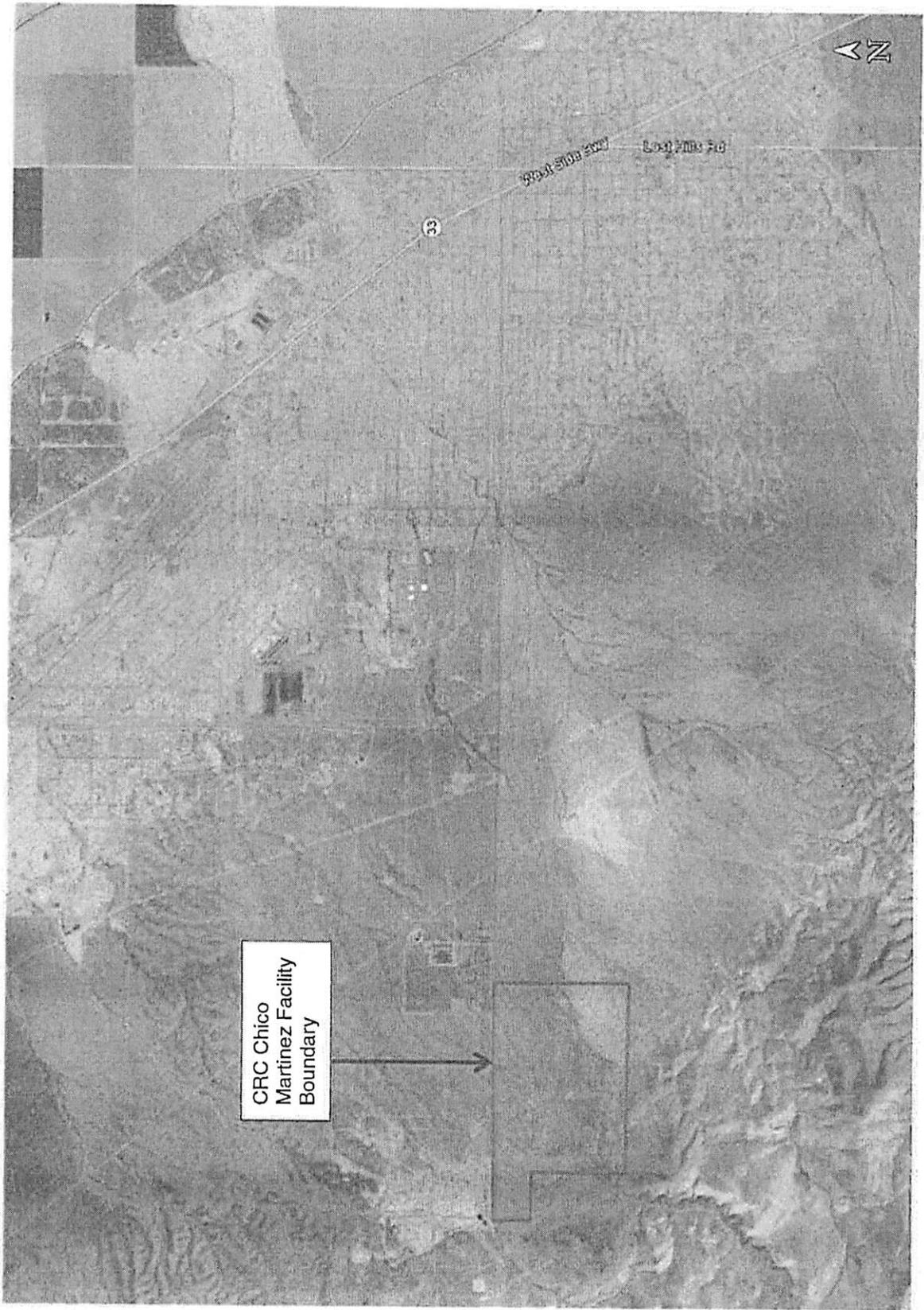
X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1327-255-0 and '-256-0	3020-05-C	21,000 gallons	\$142.00

Attachments

- I: Location Map
- II: Laboratory Analysis
- III: Tank Emissions Calculations
- IV: Emissions Profiles
- V: BACT Guideline
- VI: BACT Analysis
- VII: Statewide Compliance Statement and Title V Compliance Certification form
- VIII: HRA
- IX: Draft ATCs

ATTACHMENT I
Location Map



CRC Chico
Martinez Facility
Boundary

ATTACHMENT II
Laboratory Analysis



Oilfield Environmental and Compliance, INC.

California Resources Corporation
9600 Ming Ave Suite 300
Bakersfield CA, 93311

Project: 2015 API/TVP/HOST
Project Number: Chico Martinez
Project Manager: Zachary Dransoff

Reported:
05-Nov-15 12:26

**Chico Martinez USL 101 Oil
1504610-01 (Product)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Oilfield Environmental and Compliance

ASTM/GPA/UOP/CARB Method

API gravity 13.2 0.1 °API 1 B5K0133 04-Nov-15 04-Nov-15 ASTM D287

Vapor Pressure

HOST Vapor Pressure 0.009 @ 72°F 0.005 psi 1 B5K0118 04-Nov-15 04-Nov-15 LBNL HOST

**Chico Martinez USL 102 Oil
1504610-02 (Product)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Oilfield Environmental and Compliance

ASTM/GPA/UOP/CARB Method

API gravity 9.4 0.1 °API 1 B5K0133 04-Nov-15 04-Nov-15 ASTM D287

Vapor Pressure

HOST Vapor Pressure ND @ 76°F 0.005 psi 1 B5K0118 04-Nov-15 04-Nov-15 LBNL HOST

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Rosmer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376

ATTACHMENT III Tank Emissions Calculations

The project results in a VOC emission increase of 300 lbs/yr per tank as shown below.

Tank Input Data	
permit number (S-xxxx-xx-xx)	S-1327-X-0
facility tank I.D.	--
nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)	1
tank ROC vapor pressure (psia)	0.1
liquid bulk storage temperature, T _b (°F)	90
is this a constant-level tank? (yes, no)	no
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)	18
capacity of tank (bbl)	500
conical or dome roof? (c, d)	c
shell height of tank (feet)	11
average liquid height (feet)	7
are the roof and shell the same color? (yes,no)	yes
For roof:	
color (1:Spec Al, 2:Diff Al, 3:Light, 4:Med, 5:Red, 6:White)	4
condition (1: Good, 2: Poor)	1
---This row only used if shell is different color from roof---	3
---This row only used if shell is different color from roof---	1

Liquid Input Data	A	B
maximum daily fluid throughput (bbl)		60
maximum annual fluid throughput (bbl)		21,900
maximum daily oil throughput (bbl)(used to calculate flashing loss)		10
maximum annual oil throughput (bbl)(used to calculate flashing loss)		3,650
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
water vapor pressure at daily maximum liquid surface temperature (T _{lx}), P _{wx} (ps)	93.4	0.7850
water vapor pressure at daily minimum liquid surface temperature (T _{ln}), P _{vn} (ps)	82.6	0.5580
water vapor pressure at average liquid surface temperature (T _{la}), P _{va} (psia)	88.0	0.6612
roof outage, H _{ro} (feet)		0.1875
vapor space volume, V _v (cubic feet)		1065.59
paint factor, alpha		0.68
vapor density, W _v (lb/cubic foot)		0.0017
daily vapor temperature range, delta T _v (degrees Rankine)		49.04
vapor space expansion factor, K _e		0.1016

Results	lb/year	lb/day
Standing Storage Loss	67	0.18
Working Loss	219	0.60
Flashing Loss	14	0.04
Total Uncontrolled Tank VOC Emissions	300	0.8

Summary Table	
Permit Number	S-1327-X-0
Facility Tank I.D.	--
Tank capacity (bbl)	500
Tank diameter (ft)	18
Tank shell height (ft)	11
Conical or Dome Roof	Conical
Maximum Daily Fluid Throughput (bbl/day)	60
Maximum Annual Fluid Throughput (bbl/year)	21,900
Maximum Daily Oil Throughput (bbl/day)	10
Maximum Annual Oil Throughput (bbl/year)	3,650
Total Uncontrolled Daily Tank VOC Emissions (lb/day)	0.8
Total Uncontrolled Annual Tank VOC Emissions (lb/year)	300

ATTACHMENT IV Emissions Profiles

Permit #: S-1327-255-0	Last Updated
Facility: CALIFORNIA RESOURCES PRODUCTION	02/16/2016 EDGEHILR

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	300.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	75.0
Q2:	0.0	0.0	0.0	0.0	75.0
Q3:	0.0	0.0	0.0	0.0	75.0
Q4:	0.0	0.0		0.0	75.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					112.0
Q2:					112.0
Q3:					113.0
Q4:					113.0

Permit #: S-1327-256-0	Last Updated
Facility: CALIFORNIA RESOURCES PRODUCTION	02/16/2016 EDGEHILR

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	300.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	0.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	75.0
Q2:	0.0	0.0	0.0	0.0	75.0
Q3:	0.0	0.0	0.0	0.0	75.0
Q4:	0.0	0.0	0.0	0.0	75.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:					112.0
Q2:					112.0
Q3:					113.0
Q4:					113.0

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 ****

Pollutant	Achieved in Practice or contained 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**

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 provided costs for a vapor control system including a flare which are included after the following cost effectiveness calculation:

The annualized capital cost is

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

AP = Equivalent Annual Capital Cost of Control Equip.

P = Present value of the control equipment (tank vapor recovery and flare), including installation cost. \$89,202 (tank vapor recovery and flare) (see cost information in which follows)

i = interest rate (use 10% per policy)

n = equipment life (assume 10 years per policy)

$$AP = (P) \left\{ \frac{(0.1)(1 + 0.1)^{10}}{(1 + 0.1)^{10} - 1} \right\}$$

$$AP = (\$89,202) \times (0.1627) = \$14,513/\text{year}$$

Annual Maintenance Cost = \$12,000 (\$1000/mo contract)

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

$$\text{Tons/yr} = (600 \text{ lb/yr}) / 2000 \text{ lb/ton} = 0.3 \text{ tons/yr}$$

$$\begin{aligned} \text{Annualized cost} &= (\$14,513 + \$12,000) / \text{yr} / 0.3 \text{ tons/yr} \\ &= \$88,377/\text{ton} \end{aligned}$$

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.

Most flares spend very little time at the peak design rate. Yet, many flares are unable to handle the condition that occurs most of the time -- low flow turndown. Unlike flares which rely on large diameter curved surfaces, the GBA-Corona CSF flare ensures that the combustion takes place above the flare tip. This eliminates nearly the entire continuous flame lick on the flare. And by using properly designed wind deflectors, low flow rate flames are allowed to lift away from the flare further reducing the chance of flame lick. These two features greatly improve longevity and guard against flare tip failure.

Radiation

We have provided a radiation plot illustrating the radiation values at the maximum flow rate of 0.2 mmrscfd. Included will be an 18' self-support flare stack, including flare tip, to meet the requirements of limiting the radiation to less than 1500 btu/hr*ft² at ground elevation.

The plot is scaled to stack height and contours can be evaluated. If there are other radiation constraints or specifications that need to be evaluated, we will quickly incorporate them into our study. Please note that we have included 300 btu/hr*ft² solar radiation into our contours.

Pilot Ignition

To ignite the flare, we have offered Corona's CHT electronic pilots. This pilot is fully automatic and self-monitoring. This system has auto re-light capabilities (standard) and is self-monitoring. The CHT system uses flame ionization for pilot monitoring which ensures long life and reliability of pilot indication. This system does not require utility air and eliminates the inherent problems associated with thermocouples and flame front generators. Our package includes 2 CHT pilots and 250' of standard ignition cable per pilot. Electronics will be housed in a NEMA 4X, general purpose, stainless steel enclosure.

Air Lock Seal

A continuous supply of purge gas is required to prevent air from migrating into the waste gas header. Many studies have proved that the air will typically migrate down along the inside wall of the flare, where the gas is moving the slowest. It has also been shown, that for the same purge gas velocities, it is much easier for air to enter a large diameter tip than a small diameter tip. Finally, it has also been shown that bends within the header further inhibit the ability of the air to penetrate in the stack.

We have offered an Air Lock purge reduction seal. This seal is an inverted cone (baffle) that forms a physical obstruction for the air that typically migrates in along the flare tip body wall. When the air encounters the seal, the air is diverted toward the center of the flare (where the purge gas is moving the fastest) and toward the exit of the flare.

TVR QUOTE



GENERAL PRODUCTION SERVICE, INC.
P.O. BOX 344
TAFT, CA 93268
(661) 765-5330 phone (661) 765-4860 fax
www.generalproductionservice.com

December 18, 2013

General Production Service Inc. would like to submit the following to furnish Labor and Equipment

The following costs include: Fabrication and Installation of 3" sch 40 Production Flow lines, 3" Production Group Line, all Wellhead Assemblies, Tie all wells into (1) 3" sch 40 line and Field tie into existing Production Line to Facility.

New Wells	\$46,557.75
Scrubber/Compressor	\$23,763.60
Total Estimated Cost:	\$117,273.55

Any additional work that was not a part of the Job Walk will be on a Time & Material Basis and will be subject to a Change Order.

Thank you for the opportunity to submit this cost. If you need any additional information or have any questions, please contact me.

Scott Brocaille
Construction Foreman
(661) 577-7381

ATTACHMENT VII
Statewide Compliance Statement
Title V Compliance Certification form

RECEIVED

NOV 10 2015

SJVAPCD
Southern Region

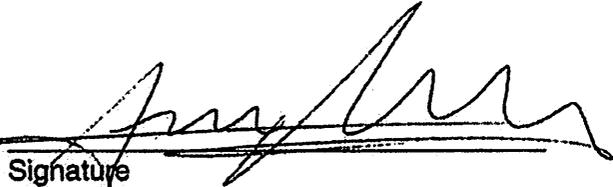
November 6, 2015

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley Unified
Air Pollution Control District
34946 Flyover Ct.
Bakersfield, CA 93308

**Subject: Federal Major Modification Statewide Compliance Certification
S-1327 ATC Application – Add Two Portable Organic Liquid Storage Tanks
(Chico Martinez Facility)**

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.


Signature

OPS. MANAGER
Title

RECEIVED
NOV 10 2015
SJVAPCD
Southern Region

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: California Resources Production Corporation	FACILITY ID: S - 1327
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name:	
3. Agent to the Owner: Zachary Dransoff	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:


Signature of Responsible Official

11/8/2015
Date

ANIBAL ARAYA
Name of Responsible Official (please print)

Operations Manager
Title of Responsible Official (please print)

ATTACHMENT VIII
HRA

San Joaquin Valley Air Pollution Control District

Risk Management Review

To: Richard Edgehill – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: March 3, 2016
 Facility Name: California Resources Production Corporation
 Location: Chico Martinez Lease, Lost Hills
 Application #(s): S-1327-255-0 & 256-0
 Project #: S-1154097

A. RMR SUMMARY

RMR Summary				
Categories	Oilfield Baker Tank (Unit 255-0)	Oilfield Baker Tank (Unit 256-0)	Project Totals	Facility Totals
Prioritization Score	0.01	0.01	0.02	>1.0
Acute Hazard Index	0.00	0.00	0.00	0.11
Chronic Hazard Index	0.00	0.00	0.00	0.02
Maximum Individual Cancer Risk	1.88E-11	3.75E-11	5.63E-11	6.79E-06
T-BACT Required?	No	No		
Special Permit Requirements?	No	No		

B. RMR REPORT

I. Project Description

Technical Services received a request on February 16, 2016, to perform a Risk Management Review for two 500 bbl transportable Baker tanks. Even though the tanks are transportable, the applicant provided the locations where the tanks will be currently installed.

II. Analysis

Toxic emissions for the tanks were calculated using VOC fugitive emission rates provided by the processing engineer, along with District approved emission factors for fugitive emissions from oilfields. Emissions were then input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines. The facilitywide cumulative prioritization scores totaled to greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Missouri Triangle to determine the dispersion

factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Units 255-0 & 256-0			
Source Type	Circular Area	Location Type	Rural
Radius of Circular Area (m)	2.29 (each tank)	Closest Receptor (m)	>305
Tank Height (m)	5.49 (each tank)	Type of Receptor	Residential & Business
VOC Emission Rates (each tank)	0.03 lbs/hr 300 lbs/yr		

III. Conclusion

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

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

IV. Attachments

- A. RMR Request Form
- B. Project Email
- C. Prioritization

ATTACHMENT IX
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1327-255-0

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES PRODUCTION CORP
MAILING ADDRESS: 9600 MING AVE, SUITE 300
BAKERSFIELD, CA 93311

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: 1 TOWNSHIP: 29S RANGE: 20E

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 500 BBL CRUDE OIL STORAGE (BAKER STYLE) TANK TO BE OPERATED AT VARIOUS LOCATIONS WITHIN CALIFORNIA RESOURCE PRODUCTION CORPORATION'S HEAVY OIL WESTERN STATIONARY SOURCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 112 lb, 2nd quarter - 112 lb, 3rd quarter - 113 lb, and fourth quarter - 113 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4258-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services
S-1327-255-0, Feb 10 2010, 1:32PM - EDGEHLR : Joint Inspection NOT Required

5. Tank shall be equipped with pressure/vacuum valve set to within 10 percent of the maximum working pressure of the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Tank shall be in a leak-free condition. A Leak-Free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 (amended May 19, 2005). A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minutes. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Tank throughput shall not exceed 60 bbls per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
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 1070 and 2201] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained on site for a period of at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1327-256-0

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES PRODUCTION CORP
MAILING ADDRESS: 9600 MING AVE, SUITE 300
BAKERSFIELD, CA 93311

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: 1 TOWNSHIP: 29S RANGE: 20E

EQUIPMENT DESCRIPTION:

TRANSPORTABLE 500 BBL CRUDE OIL STORAGE (BAKER STYLE) TANK TO BE OPERATED AT VARIOUS LOCATIONS WITHIN CALIFORNIA RESOURCE PRODUCTION CORPORATION'S HEAVY OIL WESTERN STATIONARY SOURCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 112 lb, 2nd quarter - 112 lb, 3rd quarter - 113 lb, and fourth quarter - 113 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4258-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjolle, Director of Permit Services
S-1327-256-0: Feb 10 2016 1:32PM - EDGEHLR : Joint Inspection NOT Required

5. Tank shall be equipped with pressure/vacuum valve set to within 10 percent of the maximum working pressure of the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. Tank shall be in a leak-free condition. A Leak-Free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 (amended May 19, 2005). A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minutes. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Tank throughput shall not exceed 60 bbls per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
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 1070 and 2201] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained on site for a period of at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 4623] Federally Enforceable Through Title V Permit

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