



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

OCT 22 2013

Mr. Jerry Frost  
Vintage Production California LLC  
9600 Ming Ave, Suite 300  
Bakersfield, CA 93311

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)**  
**District Facility # S-1327**  
**Project # 1133983**

Dear Mr. Frost:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes the installation of a 500 bbl fixed-roof crude oil storage tank (Baker tank).

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate 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 Authority 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,

David Warner  
Director of Permit Services

Enclosures

DW:RE/st

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

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

Northern Region  
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Southern Region  
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Bakersfield, CA 93308-9725  
Tel: 861-392-5500 FAX: 861-392-5585

Newspaper notice for publication in Bakersfield Californian and for posting on valleyair.org

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**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND  
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY  
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed significant modification of Vintage Production California LLC at the heavy oil production stationary source in the western Kern County fields, California. The project authorizes the installation of a 500 bbl fixed-roof crude oil storage tank (Baker tank).

The District's analysis of the legal and factual basis for this proposed action, project #1133983, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and at any District office. There are no emission increases associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact the District at (661) 392-5500. Written comments on the proposed initial permit must be submitted by November 25, 2013 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

## Authority to Construct Application Review

Fixed Roof Oil Field Production Tank < 5000 BBLs  
Uncontrolled Emissions Less than 6 tons/year  
Heavy Oil, Not subject to NSPS

Facility Name: Vintage Production California LLC

Date: October 15, 2013

Mailing Address: 9600 Ming Ave, Suite 300  
Bakersfield, CA 93311

Engineer: Richard Edgehill  
Lead Engineer: Allan Phillips

Contact Person: Jerry Frost  
Telephone: (661) 869-8000

Application #(s): S-1327-209-0

Project #: 1133983

Deemed Complete: October 10, 2013

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### I. Proposal

Vintage Production California LLC (VPC) is applying for an Authority to Construct (ATC) permit for the installation of a 500 bbl fixed-roof crude oil storage tank (Baker tank). The increase in VOC emissions from the tank will be mitigated by cancellation of tank S-1327-91. The project triggers BACT and public notice as the project is a Federal Major Modification. Offsets are not required.

PTO S-1327-91-1 is included in **Attachment I**.

VPC received their Title V Permit on December 31, 2012. The project is a Federal Major Modification and therefore it is classified as a Title V Significant Modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. VPC must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

### II. Applicable Rules

|           |   |
|-----------|---|
| Rule 2201 | New and Modified Stationary Source Review Rule (4/21/11)                      |
| Rule 2520 | Federally Mandated Operating Permits (6/21/01)                                |
| Rule 2530 | Federally Enforceable Potential to Emit                                       |
| Rule 2410 | Prevention of Significant Deterioration (Adopted 6/16/11, effective 11/26/12) |

Rule 4001 New Source Performance Standards,  
Subpart Kb (Amended 4/14/99) - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) is not applicable. This subpart does not apply to vessels with a design capacity  $\leq 1,589.874 \text{ m}^3$  ( $\leq 420,000$  gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer. The capacity of the tank is  $\leq 420,000$  gallons, and it stores crude oil prior to custody transfer; therefore, this subpart does not apply to the tank in this project.

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

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 facility is located at NE Section 17, T11N, R23W. The facility is not located within 1,000 feet of the outer boundary of any K-12 school. Therefore, pursuant to CH&SC 42301.6, California Health and Safety Code (School Notice), public notification is not required.

A facility location map is included in **Attachment II**.

### IV. Process Description

The tanks and vessels at the tank battery receive production prior to custody transfer. The 500 bbl tank(s) in this project will operate as a crude oil storage tank.

**V. Equipment Listing**

**Pre-Project Equipment Description:**

~~S-1327-91-1: ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE VACUUM VENT (HAZELTON LEASE) (TO BE CANCELLED)~~

**Post Project Equipment Description:**

S-1327-209-0: 500 BBL FIXED-ROOF CRUDE OIL STORAGE TANK (BAKER TANK) WITH P/V VALVE

**VI. Emission Control Technology Evaluation**

The tank(s) 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**

**VII. Emissions 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 oil = 0.5 psia (Applicant)
- Tank temperature, 125° F
- Applicant proposes 50 bbl/day throughput
- VOCs molecular weight, 100 lb/lbmol (applicant emissions calculation)
- Emissions from rectangular Baker tank assumed to be same as those from a circular 500 bbl tank 15 ft diameter, 16 ft high

**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. See Calculations Attachment III.

**C. Calculations**

**1. Pre-Project Potential to Emit, (PE<sub>1</sub>)**

S-1327-91 (to be deleted)

VOC: 3.5 lb/day, 1273 lb/yr

S-1327-209

Since this is a new tank, the PE<sub>1</sub> = 0

**2. Post Project Potential to Emit, (PE<sub>2</sub>)**

Post-project potential to emit is calculated based on the fugitive component counts. The following table summarizes the post-project potential to emit for units included in this project.

| Permit Unit | VOC - Daily PE2 (lb/day) | VOC - Annual PE2 (lb/Year) |
|-------------|--------------------------|----------------------------|
| S-1327-209  | 3.5                      | 1,265                      |

The emissions profile is included in **Attachment IV**.

Greenhouse Gas (GHG) Emissions

The project results in no increase in VOC emissions and therefore the increase in GHG emissions is zero.

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

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

Facility-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)**

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

As noted above, 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

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

##### **Rule 2410 Major Source Determination:**

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). Therefore the following PSD Major Source thresholds are applicable.

| PSD Major Source Determination<br>(tons/year) |     |     |     |     |     |      |           |
|---|-----|-----|-----|-----|-----|------|-----------|
|   | NO2 | VOC | SO2 | CO  | PM  | PM10 | CO2e      |
| Estimated Facility PE before Project Increase |     |     |     |     |     |      | >100,000* |
| PSD Major Source Thresholds                   | 250 | 250 | 250 | 250 | 250 | 250  | 100,000   |
| PSD Major Source ? (Y/N)                      |     |     |     |     |     |      | Y         |

\*project S1327, 1123645

As shown above, the facility is an existing major source for PSD for at least one pollutant. Therefore the facility is an existing major source for PSD.

## 6. Baseline Emissions (BE)

### a. Annual 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.

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 3.23

#### S-1327-91

Since tank S-1327-91 has a PV Vent, it is considered a Clean Emissions Unit as it satisfies current achieved in practice requirement of BACT Guideline 7.3.1 (**Attachment V**).

Therefore, the BE is equal to the pre-project potential to emit (PE1).

#### S-1327-209

Since this is a new tank, the BE is equal zero.



**7. SB 288 Major Modification**

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

Since this facility is not a major source for SOx and PM10, this project does not constitute an SB 288 major modification for SOx and PM10.

Since this facility is a major source for NOx and 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 <sub>x</sub>                      | 0                     | 50,000              | No  |
| SO <sub>x</sub>                      | Na                    | 80,000              | No  |
| PM <sub>10</sub>                     | Na                    | 30,000              | No  |
| VOC                                  | 1,265                 | 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**

Since this facility is not a Major Source for SOx and PM10, this project does not constitute a Federal Major Modification for these air contaminants.

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 <sub>x</sub> *  | 0                                 | 0                  | No                          |
| VOC*   | 1,265                             | 0                  | Yes                         |
| PM <sub>10</sub>   | Na                                | 30,000             | No                          |
| PM <sub>2.5</sub>  | Na                                | 20,000             | No                          |
| SO <sub>x</sub>  | Na                                | 80,000             | No                          |

\*If there is any emission increases in NO<sub>x</sub> 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 pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>
- Greenhouse gases (GHG): CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

#### I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

**II. Significance of Project Emission Increase Determination**

**a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds**

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

| PSD Significant Emission Increase Determination: Potential to Emit (tons/year) |     |     |     |    |      |          |
|--|-----|-----|-----|----|------|----------|
|  | NO2 | SO2 | CO  | PM | PM10 | CO2e     |
| Total PE from New and Modified Units   | 0   | 0   | 0   | 0  | 0    | <75,000* |
| PSD Significant Emission Increase Thresholds                                   | 40  | 40  | 100 | 25 | 15   | 75,000   |
| PSD Significant Emission Increase?   | N   | N   | N   | N  | N    | N        |

\*small amount of tank emissions

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion 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 tank is new QNEC = PE2/4.

## **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 a new crude oil storage tank with a PE greater than 2 lb/day for VOC. BACT is triggered.

#### **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.

| <b>Offset Determination (lb/year)</b> |                       |                       |                        |           |            |
|---------------------------------------|-----------------------|-----------------------|------------------------|-----------|------------|
|                                       | <b>NO<sub>x</sub></b> | <b>SO<sub>x</sub></b> | <b>PM<sub>10</sub></b> | <b>CO</b> | <b>VOC</b> |
| <b>SSPE2</b>                          | --                    | --                    | --                     | --        | >20,000    |
| <b>Offset Thresholds</b>              | 20,000                | 54,750                | 29,200                 | 200,000   | 20,000     |
| <b>Offsets calculations required?</b> | No                    | No                    | No                     | No        | Yes        |

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

The facility is proposing to 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:

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

VOCs

| Unit  | PE2 – BE (lb/yr) |
|-------|------------------|
| '-209 | 1,265            |
| '-91  | - 1,273          |
| Total | -8               |

Offsets will not be required for the project.

## 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 <sub>x</sub>   |                 |                 | 20,000 lb/year   | No                      |
| SO <sub>x</sub>   |                 |                 | 54,750 lb/year   | No                      |
| PM <sub>10</sub>  |                 |                 | 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.

| <b>SSIPE Public Notice Thresholds</b> |                            |                            |                            |  |                                    |
|---------------------------------------|----------------------------|----------------------------|----------------------------|--|------------------------------------|
| <b>Pollutant</b>                      | <b>SSPE2<br/>(lb/year)</b> | <b>SSPE1<br/>(lb/year)</b> | <b>SSIPE<br/>(lb/year)</b> | <b>SSIPE Public<br/>Notice Threshold</b> | <b>Public Notice<br/>Required?</b> |
| NO <sub>x</sub>                       |                            |                            | 0                          | 20,000 lb/year                           | No                                 |
| SO <sub>x</sub>                       |                            |                            | 0                          | 20,000 lb/year                           | No                                 |
| PM <sub>10</sub>                      |                            |                            | 0                          | 20,000 lb/year                           | No                                 |
| CO                                    |                            |                            | 0                          | 20,000 lb/year                           | No                                 |
| VOC                                   | >20,000                    | >20,000                    | -8                         | 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.

Crude oil throughput shall not exceed 50 barrels 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 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Y

## E. Compliance Assurance

The following measures shall be taken to ensure continued compliance with District Rules:

### 1. Source Testing

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



## **2. Monitoring**

TVP testing is required to demonstrate compliance with the DEL. The following permit conditions will ensure continued compliance:

Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Y

## **3. Record Keeping**

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 Rules 2201 & 4623] Y

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

## **4. Reporting**

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 1070 and 2201] Y

## **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** is VPC’s Title V Compliance Certification form. 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 tank is 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 tank is not an affected facility and subpart OOOO does not apply.

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

**Rule 4101 - Visible Emissions**

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

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

**Rule 4102 Nuisance**

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

**California Health & Safety Code 41700 (Health Risk Assessment)**

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment 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:

| <b>HRA Summary</b> |                    |                        |
|--------------------|--------------------|------------------------|
| <b>Unit</b>        | <b>Cancer Risk</b> | <b>T-BACT Required</b> |
| S-1327-209-0       | 0.19 per million   | No                     |

### **Rule 4623, Storage of Organic Liquids**

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

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

Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Y

The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [District Rules 2201 and 4623] Y

For crude oil with an API gravity of greater than 26 degrees, the TVP shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting RVP to TVP at the tanks maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B of Rule 4623. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB, and US EPA. [District Rules 2201 and 4623] Y

For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Y

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

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 1070 and 2201] 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 Rule 2201 & 4623] Y

Compliance is expected.

### **California Health & Safety Code 42301.6 (School Notice)**

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

## **California Environmental Quality Act (CEQA)**

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

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

### **Greenhouse Gas (GHG) Significance Determination**

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

### **District CEQA Findings**

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (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. Pending a successful NSR Public Noticing period, issue ATC S-1327-209-0 subject to the permit conditions on the attached draft ATC in **Attachment IX**.

**X. Billing Information**

| <b>Annual Permit Fees</b> |                     |                        |                   |
|---------------------------|---------------------|------------------------|-------------------|
| <b>Permit Number</b>      | <b>Fee Schedule</b> | <b>Fee Description</b> | <b>Annual Fee</b> |
| S-1327-209-0              | 3020-05-C           | 21,000 gallons         | \$135.00          |

**Attachments**

- I: PTO S-1327-91-1 (to be canceled)
- II: Project Location Map
- 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**  
**PTOs S-1327-91-1 (to be surrendered)**

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-91-1

**EXPIRATION DATE:** 02/28/2017

**SECTION:** NE17 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE VACUUM VENT (HAZELTON LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rules 2201] Federally Enforceable Through Title V Permit
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
7. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

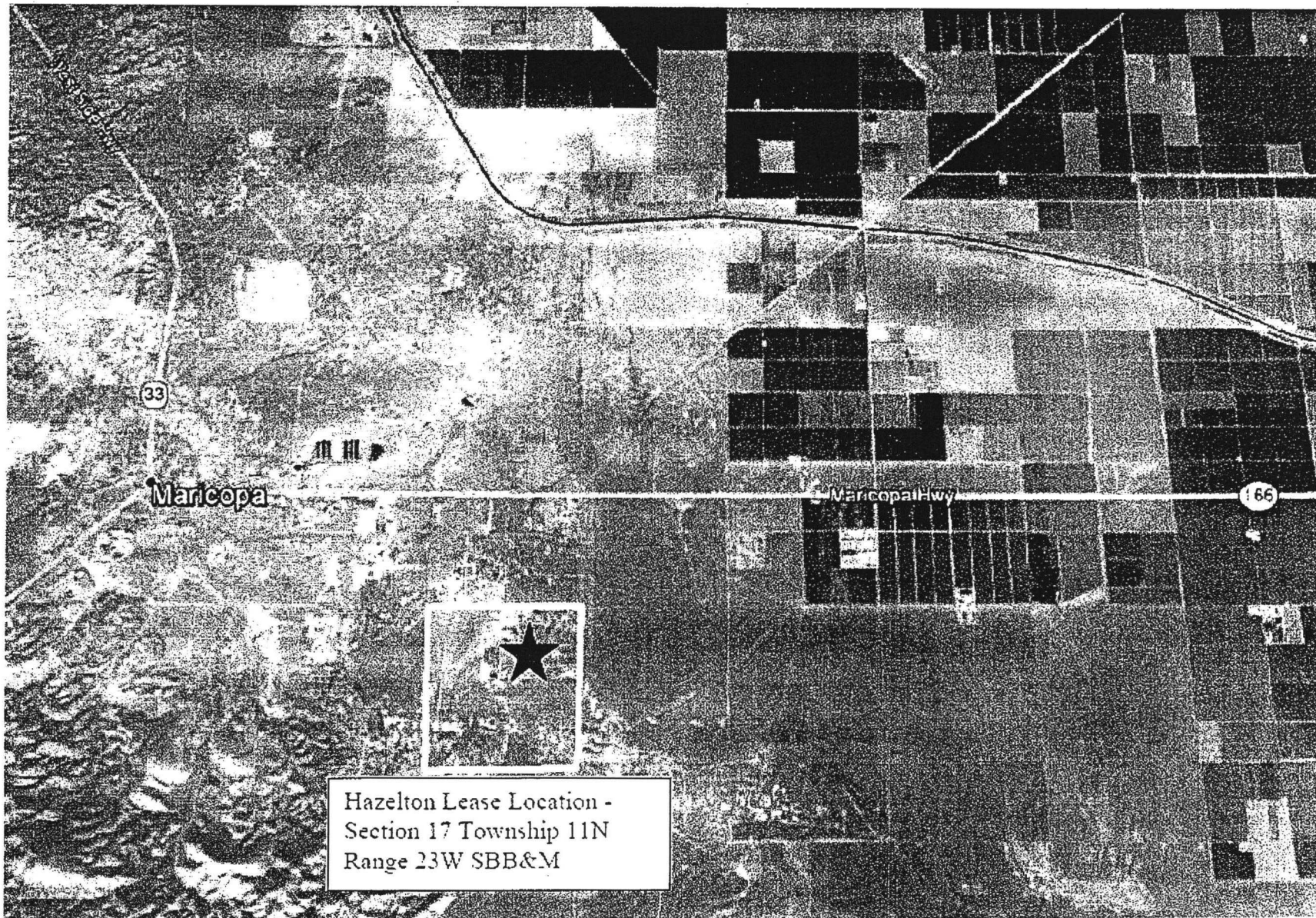


11. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

# ATTACHMENT II

## Project Location Map



Hazelton Lease Location -  
Section 17 Township 11N  
Range 23W SBB&M

# ATTACHMENT III

## Tank Emissions Calculations

## EXISTING TANK PTE

| Tank Input Data  |             |
|--|-------------|
| permit number (S-xxxx-xx-xx)   | S-1327-91-1 |
| facility tank I.D.   | Hazelton    |
| nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)                        | 1           |
| tank ROC vapor pressure (psia)   | 0.5         |
| liquid bulk storage temperature, T <sub>b</sub> (°F)                         | 125         |
| 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)  | 15          |
| capacity of tank (bbl)   | 500         |
| 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 diferent color from roof-----            | 4           |
| -----This row only used if shell is diferent color from roof-----            | 1           |

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

| Calculated Values   |       |         |
|---|-------|---------|
|   | A     | B       |
| daily maximum ambient temperature, T <sub>ax</sub> (°F)   |       | 77.65   |
| daily minimum ambient temperature, T <sub>an</sub> (°F)   |       | 53.15   |
| daily total solar insolation factor, I (Btu/ft <sup>2</sup> -day)                                     |       | 1648.9  |
| atmospheric pressure, P <sub>a</sub> (psia)   |       | 14.47   |
| (psia)  | 113.0 | 1.4030  |
| (psia)  | 102.2 | 1.0236  |
| water vapor pressure at average liquid surface temperature (T <sub>la</sub> ), P <sub>va</sub> (psia) | 107.6 | 1.1993  |
| roof outage, H <sub>ro</sub> (feet)   |       | 0.1563  |
| vapor space volume, V <sub>v</sub> (cubic feet)   |       | 1087.90 |
| paint factor, alpha   |       | 0.68    |
| vapor density, W <sub>v</sub> (lb/cubic foot)   |       | 0.0082  |
| daily vapor temperature range, delta T <sub>v</sub> (degrees Rankine)                                 |       | 49.04   |
| vapor space expansion factor, K <sub>e</sub>  |       | 0.1105  |

| Results                                      |              |            |
|--|--------------|------------|
|  | lb/year      | lb/day     |
| Standing Storage Loss                        | 360          | 0.99       |
| Working Loss                                 | 913          | 2.50       |
| Flashing Loss                                | N/A          | N/A        |
| <b>Total Uncontrolled Tank VOC Emissions</b> | <b>1,273</b> | <b>3.5</b> |

| Summary Table  |             |
|--|-------------|
| Permit Number  | S-1327-91-1 |
| Facility Tank I.D.                                     | Hazelton    |
| Tank capacity (bbl)                                    | 500         |
| Tank diameter (ft)                                     | 15          |
| Tank shell height (ft)                                 | 16          |
| Conical or Dome Roof                                   | Conical     |
| Maximum Daily Fluid Throughput (bbl/day)               | 50          |
| Maximum Annual Fluid Throughput (bbl/year)             | 18,250      |
| Maximum Daily Oil Throughput (bbl/day)                 | 50          |
| Maximum Annual Oil Throughput (bbl/year)               | ---         |
| Total Uncontrolled Daily Tank VOC Emissions (lb/day)   | 3.5         |
| Total Uncontrolled Annual Tank VOC Emissions (lb/year) | 1,273       |

## NEW TANK PTE

| Tank Input Data  |            |
|--|------------|
| permit number (S-xxxx-xx-xx)   | S-1327-XXX |
| facility tank I.D.   | Hazelton   |
| nearest city (1: Bakersfield, 2: Fresno, 3: Stockton)                        | 1          |
| tank ROC vapor pressure (psia)   | 0.5        |
| liquid bulk storage temperature, T <sub>b</sub> (°F)                         | 125        |
| 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)  | 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-----           | 4          |
| -----This row only used if shell is different color from roof-----           | 1          |

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

| Calculated Values   | A     | B       |
|---|-------|---------|
| daily maximum ambient temperature, T <sub>ax</sub> (°F)   |       | 77.65   |
| daily minimum ambient temperature, T <sub>an</sub> (°F)   |       | 53.15   |
| daily total solar insulation factor, I (Btu/ft <sup>2</sup> -day)                                     |       | 1648.9  |
| atmospheric pressure, P <sub>a</sub> (psia)   |       | 14.47   |
| (psia)  | 113.0 | 1.4030  |
| (psia)  | 102.2 | 1.0236  |
| water vapor pressure at average liquid surface temperature (T <sub>la</sub> ), P <sub>va</sub> (psia) | 107.6 | 1.1993  |
| roof outage, H <sub>ro</sub> (feet)   |       | 0.1875  |
| vapor space volume, V <sub>v</sub> (cubic feet)   |       | 1065.59 |
| paint factor, alpha   |       | 0.68    |
| vapor density, W <sub>v</sub> (lb/cubic foot)   |       | 0.0082  |
| daily vapor temperature range, delta T <sub>v</sub> (degrees Rankine)                                 |       | 49.04   |
| vapor space expansion factor, K <sub>e</sub>  |       | 0.1105  |

| Results                                      | lb/year      | lb/day     |
|--|--------------|------------|
| Standing Storage Loss                        | 353          | 0.97       |
| Working Loss                                 | 913          | 2.50       |
| Flashing Loss                                | N/A          | N/A        |
| <b>Total Uncontrolled Tank VOC Emissions</b> | <b>1,265</b> | <b>3.5</b> |

| Summary Table  |            |
|--|------------|
| Permit Number  | S-1327-XXX |
| Facility Tank I.D.                                     | Hazelton   |
| Tank capacity (bbl)                                    | 500        |
| Tank diameter (ft)                                     | 18         |
| Tank shell height (ft)                                 | 11         |
| Conical or Dome Roof                                   | Conical    |
| Maximum Daily Fluid Throughput (bbl/day)               | 50         |
| Maximum Annual Fluid Throughput (bbl/year)             | 18,250     |
| Maximum Daily Oil Throughput (bbl/day)                 | 50         |
| Maximum Annual Oil Throughput (bbl/year)               | ---        |
| Total Uncontrolled Daily Tank VOC Emissions (lb/day)   | 3.5        |
| Total Uncontrolled Annual Tank VOC Emissions (lb/year) | 1,265      |

# ATTACHMENT IV Emissions Profiles

|  |                     |
|--|---------------------|
| Permit #: S-1327-209-0                     | Last Updated        |
| Facility: VINTAGE<br>PRODUCTION CALIFORNIA | 10/12/2013 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       | 1265.0     |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 3.5        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  | 0.0        | 0.0        | 0.0         | 0.0       | 316.0      |
| Q2:  | 0.0        | 0.0        | 0.0         | 0.0       | 316.0      |
| Q3:  | 0.0        | 0.0        | 0.0         | 0.0       | 316.0      |
| Q4:  | 0.0        | 0.0        | 0.0         | 0.0       | 317.0      |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |



# ATTACHMENT V BACT Guideline

## 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 (the same costs as provided for project 1132362 which was deemed complete 6-18-13 and therefore < 1 year old). The detailed costs follow. The cost effectiveness calculations are as follows:

The annualized capital cost is

AP = (P)  $\{[(i) (1 + i)^n]/[(1 + i)^n - 1]\}$ , where  
AP = Equivalent Annual Capital Cost of Control Equip.  
P = Present value of the control equipment, including installation cost.  
\$276,050 + \$42,250 = \$318,300 (see cost information in Appendix G)  
i = interest rate (use 10% per policy)  
n = equipment life (assume 10 years per policy)

$$AP = (P) \{[(0.1) (1 + 0.1)^{10}]/[(1 + 0.1)^{10} - 1]\}$$
$$AP = (\$318,300) \times (0.16274) = \$51,800/\text{year}$$

Annual Maintenance Cost = \$12,000  
Utility Cost = \$35,126

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

$$\text{Tons/yr} = (1,265 \text{ lb/yr})/2000 \text{ lb/ton} = 0.6 \text{ tons/yr}$$

$$\text{Annualized cost} = (\$51,800 + \$12,000 + \$35,126)/\text{yr}/0.6 \text{ tons/yr}$$
$$= \$164,876/\text{ton}$$

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

#### **Step 5 - Select BACT**

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

## FLARE QUOTE

# GBA-Corona, Inc.

10333 Harwin, Suite 110

Houston, Texas 77036

Telephone: 713-773-9933 / Fax: 713-773-9940

---

## FACSIMILE TRANSMITTAL SHEET

---

|                 |                                     |
|-----------------|-------------------------------------|
| TO:             | FROM:                               |
| George Elledge  | Travis Turner                       |
| COMPANY:        | DATE:                               |
| OXY             | December 10, 2012                   |
| FAX NUMBER:     | TOTAL NO. OF PAGES INCLUDING COVER: |
| via e-mail      | 8                                   |
| PHONE NUMBER:   | SENDER'S REFERENCE NUMBER:          |
|                 | CF12.1909                           |
| RE:             | YOUR REFERENCE NUMBER:              |
| Flare Quotation | Mt. Poso TVR and Flare              |

---

Dear George,

The following is in response to your request for commercial and technical information pertaining to the above referenced flare system.

In this package, we have included flare tip sizing, equipment data sheets, a radiation plot, and a pressure vs. flow curve for system. Please note that this system has been designed by using a lot of assumptions and that the design can change if the process data changes.

### Flare Tip Selection

For this application, we have selected a GBA-Corona CSF-RO-3 sonic flare for this relief system. The back pressure will not exceed 20 psig when flowing at the maximum flow rate of 0.2mmscfd.

The GBA-Corona CSF flare uses the energy associated with pressurized gas to entrain and mix large quantities of air. The difference in this multi-arm sonic flare is in the nozzle. Unlike other multi-arm flares, the CSF flare does not lose efficiency as the size increases. The annulus design of the nozzle enhances the mixing rate of the entrained air, into the primary mixing zone of flame. This highly aerated gas and air stream burns with a clean short flame and with F-Factors ranging from 0.06 to 0.10.

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 flares 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 mmwcf/d. 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<sup>2</sup> at ground elevation.

The plot is scaled so stack heights 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<sup>2</sup> 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.

**Quotation and Scope of Supply**

**Flare Tip**

1.0 One (1) CSF-R0-3 flare tip complete with two CHT pilot/ignitor assemblies, manifolds and wind deflectors.

**Pilot Control Panel**

2.0 One (1) CHT automatic, electronic pilot control panel. Panel to control two pilots. Electrical components to be housed in a NEMA 4X, general purpose enclosure. Also included is 250' of ignition cable per pilot.

3.0 One (1) 18' self-support flare stack. This will also include calculations and drawing that will specifically meet the required criteria for the project site and location.

**Price EXW – Houston, TX**

**\$42,250.00.**





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**Compressor - Yearly Operating Cost**

---

|                       |       |      |
|-----------------------|-------|------|
| Horsepower =          | 40    | hp   |
| 1 hp =                | 0.746 | kW.  |
| Price per kW-hr = \$  | 0.12  |      |
| 1 year =              | 365   | days |
| 1 day =               | 24    | hr   |
| Total hour per year = | 8760  | hr   |

---

$$\text{Operating Cost} = (\text{hp}) \times (\# \text{ kW/hp}) \times (\text{hr/year}) \times (\text{Price} / \text{kW-hr})$$

$$\text{Estimated yearly operating cost} = \$ 31,367.81$$

---

**Flare - Yearly Operating Cost**

---

|   |      |      |
|---|------|------|
| Required gas flowrate =                     | 110  | SCFH |
| NG, industrial price per 1000 cu. foot = \$ | 3.90 |      |
| 1 year =                                    | 365  | days |
| 1 day =                                     | 24   | hr   |
| Total hours per year =                      | 8760 | hr   |

---

$$\text{Operating Cost} = (\text{SCFH}) \times (\text{hr/year}) \times (\text{Price}/1000 \text{ cu.ft})$$

$$\text{Estimated yearly operating cost} = \$ 3,758.04$$

## Com-Pac Systems, Inc. Proposal 12-2221R0

December 26, 2012

Vintage Production  
 9000 Ming Ave,  
 Suite 300  
 Bakersfield, CA. 93311  
 Attention: Mr. George Elledge

Reference: Mount Poso South Unit TVR Compressor Budgetary Proposal

Sir,

In response to inquiry regarding the above referenced project Com-Pac Systems, Inc. is pleased to offer this budgetary proposal for your consideration. This proposal is for budgetary purposes only and does not take into account any design conditions and/or specifications, other than those already supplied, and is subject to any exceptions and clarifications contained herein.

### 1.0 Scope of Supply

Provide engineering, labor and material to supply one (1) fully packaged TVR compressor packages.

The package is complete with two (2) x 100% self supporting compressors, electric motor drivers, suction and discharge scrubbers complete with condensate removal system, air cooled finned tubed heat exchanger complete with discharge gas and compressor jacket water cooling sections each sized for both compressor running, compressor jacket water cooling systems complete with jacket water circulation pumps and surge tank, compressor tube oil system complete with an electric motor driven lubricator pump and force feed divider block distribution system, process piping including recycle capacity control loop with manual by-pass, utility piping, instrumentation and PLC based compressor control panel all mounted on a single fit for purpose steel skid.

The package is designed to meet the following conditions and includes the following list of materials

### 2.0 Design Conditions

| PARAMETER                                       |                | DESIGN |
|---|----------------|--------|
| Flow Rate @ Skid Edge                           | MSCFD          | 100    |
| Compressor Delivered Capacity (Each Compressor) | MSCFD          | 105    |
| Suction Temperature (@ Compressor Flange)       | <sup>o</sup> F | 90     |
| Suction Pressure @ Compressor Flange)           | PSIG           | 0.0    |
| Discharge Temperature (@ Cooler Discharge)      | <sup>o</sup> F | 130    |
| Discharge Pressure @ Compressor Flange)         | PSIG           | 45     |

### 3.0 Gas Compressor

Two (2) Ro Flo model 5CC, sliding vane, positive displacement compressors. The compressors are belt driven to 1850 rpm and are equipped as per the following:

- Double bellows seals complete with pressurized oil seal system for zero shaft seal emissions
- Jacket water cooling system including:
  - One (1) air cooled finned tubed jacket water cooler, sized for both compressor running
  - Two (2) electric motor driven coolant pumps, one for each compressor
  - Two (2) thermostatic type temperature control valves, one for each compressor
  - Two (2) jacket water no-flow switches, one for each compressor

## Com-Pac Systems, Inc. Proposal 12-2221R0

- Dedicated force feed cylinder lubrication system including:
  - Two (2) electric motor driven lubricator pumps, one for each compressor
  - Two (2) pressurized divider block distribution systems, one for each compressor
  - Two (2) lube oil no-flow switches, one for each compressor
- One (1) 30 gallon lube oil day tank, common to both compressors
- Torsionally resilient coupling /w built to suit coupling guard

### 3.1 Compressor Performance

See attached

### 4.0 Compressor Driver

Two (2) Baldor model ECP416T, or equal, premium efficiency, severe duty, induction electric motor as per the following:

- 20 HP
- 3600 RPM
- TEFC
- 460/3/60 VAC
- 1.15 service factor
- Lubricated bearings
- Rotatable, oversized conduit box w/ stainless steel hardware
- Rated for NEC Class 1 Division 2 Groups C&D hazardous area

### 4.1 Compressor Driver Performance

See attached

### 5.0 Gas Cooler

One (1) ACE model C32M-4 or equal, vertical finned tube air cooled heat exchanger as per the following:

- One (1) after gas cooling section, sized for both compressors running, as per the following
  - SA-516/70 carbon steel headers
  - 1/16" corrosion allowance
  - SA-249 304 stainless steel welded tubes
  - Manual louver
  - 5005 marine grade aluminum fins
  - ASME coded stamped w/ National Board registration
- One (1) compressor lube jacket water cooling section, sized for both compressors running as per the following
  - Carbon steel headers
  - SA-214 carbon steel welded tubes
  - 5005 marine grade aluminum fins
- Mounted electric motor driven direct drive fan drive assembly
- Cooler structure as per the following
  - Seal welded
  - White metal blasted
  - Metalized headers and structure

### 5.1 Cooler Performance

## Com-Pac Systems, Inc. Proposal 12-2221R0

### 6.0 Scrubbers

One (1) 10-3/4" OD x 48" seam/seam API 11P Class "C" vertical suction scrubber, sized for both compressors running, as per the following:

- Carbon steel per SA106-B, SA-234 WPB, SA-105
- Designed, fabricated, tested, inspected and stamped to ASME Sec VIII Div II
- 1/16" corrosion allowance
- 100% x-ray per ASME Sec VIII Div II
- Post weld heat treated
- Internally plastic coated
- Stainless steel mesh pad type mist extractor
- One (1) bridle mounted level control assembly as per the following:
  - Level transmitter guided wave type (condensate pump on/off)
  - Level indicator
- One (1) bridle mounted level shutdown assembly as per the following:
  - Level swath high/high (shutdown)
  - Level switch low/low (alarm)
- One (1) rotary vane electric motor driven condensate pumps sized for 10 gpm @ 60 psig discharge

One (1) 8-5/8" OD x 48" seam/seam API 11P Class "C" vertical discharge scrubber, sized for both compressors running, as per the following:

- Carbon steel per SA106-B, SA-234 WPB, SA-105
- Designed, fabricated, tested, inspected and stamped to ASME Sec VIII Div II
- 1/16" corrosion allowance
- 100% x-ray per ASME Sec VIII Div II
- Post weld heat treated
- Internally plastic coated
- Stainless steel mesh pad type mist extractor
- One (1) bridle mounted level assembly as per the following:
  - Level transmitter guided wave type
  - Level indicator
- One (1) bridle mounted level shutdown assembly as per the following:
  - Level swath high/high (shutdown)
- One (1) Fisher D2 pneumatic dump valve

*Note 1 - All pressure vessel sizes are subject to final engineering*

### 7.0 Process Piping

One (1) lot of gas process piping, sized for both compressors running, from skid edge suction connection through the compressor package to final skid edge discharge connection, including relief valve header, as per the following:

- Carbon steel per ASTM A106-B, ASTM WPB-234 ANSI A-105
- Designed, fabricated, inspected and tested to ANSI B31.3 severe cyclic
- 1/16" corrosion allowance
- 20% x-ray examination per ANSI B31.3 severe cyclic
- Flanged process connections
- Flanged and/or threaded instrumentation connections
- Process piping pipe supports are pipe straps, no u-bolts, welded to main members

# Com-Pac Systems, Inc.

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Odessa, Texas 79766

## Com-Pac Systems, Inc. Proposal 12-2221R0

### 8.0 Process Valves

One (1) lot of process valves from edge suction block valve through the compressor package to skid edge final discharge block. All process valves are carbon steel bodies, SS trim and firesafe. The following valves are included:

- One (1) manual full port suction block valve located at skid edge
- One (1) conventional type thermal relief valve on suction scrubber complete with full port inlet/outlet block valves, bleed ring and bleed valve.
- Two (2) manual inlet double block and bleed valve sets. One each located between suction scrubber and each compressor inlet
- One (1) conventional type relief valve on each compressor discharge complete with full port inlet/outlet block valves, bleed ring and bleed valve.
- One (1) automatic recycle capacity control valve, sized for 100% of flow, including I/P, positioner and manual bypass loop to maintain suction pressure
- Two (2) discharge check valve double door spring assisted closure type. One located on the discharge of each compressor
- Two (2) manual outlet double block and bleed valve sets. One each located between compressor discharge check valve and discharge scrubber
- One (1) conventional type full flow relief valve on discharge scrubber complete with full port inlet/outlet block valves, bleed ring and bleed valve.
- One (1) common discharge check valve double door spring assisted closure type.
- One (1) manual full port discharge block valve located at skid edge

### 9.0 Utility Piping, Valves and Tubing

One (1) lot utility piping, valves and tubing as per the following:

- Threaded and/or socket weld stainless steel lube oil piping per SA-312 304, SA-182 304
- Threaded and/or socket weld carbon steel jacket water piping per SA106-B, SA-105
- Threaded and/or socket weld carbon steel instrument air piping per SA106-B, SA-105
- SA-249 304SS welded instrument tubing
- 304SS Parker, or equal, tubing fittings
- Galvanized u-bolts
- Valves are threaded, carbon steel body carbon steel trim

### 10.0 Instrumentation and Electrical

One (1) lot skid instrumentation and electrical as per the following:

- Instrumentation/end devices are designed for installation in a Class I Division 2 Group C&D hazardous area classification
- All wiring in ridged galvanized conduit with type "G" galvanized fittings
- Preliminary instrument manufactures as per the following:
  - Pressure Indicating Transmitter – Rosemount 3051S
  - Temperature Indicating Transmitter – Rosemount 644
  - Temperature RTD's – Rosemount 0068
  - Level Bridle Assembly – Com-Pac Systems standard
  - Level Transmitter Guided Wave – Rosemount 3300
  - Level Switch Ultrasonic – Rosemount 2120
  - Level Indicator – Penberthy
  - Vibration Transmitter – Metrix ST5491E

## Com-Pac Systems, Inc. Proposal 12-2221R0

### 11.0 Control Panel

One (1) compressor control panel is provided mounted and wired on the compressor skid. The control panel and equipment are rated for National Electrical Code area classification of Class I Division II, Groups C & D and is equipped as per the following:

- Allen Bradley ControlLogix programmable logic controller
- Allen Bradley 1000CP HMI
- Ethernet connection
- Door mounted ESD, re-set switch and power on light
- NEMA 4X stainless steel enclosure
- Package control instrumentation for at a minimum
  - Package suction pressure
  - Package suction temperature
  - Suction scrubber level control
  - Suction scrubber low/low level
  - Suction scrubber high/high level
  - Compressor "A" discharge temperature
  - Compressor "A" discharge pressure
  - Compressor "A" high vibration
  - Compressor "A" lube oil no flow
  - Compressor "A" lubricator low level
  - Compressor "A" jacket water high temperature
  - Compressor "A" jacket water no flow
  - Compressor "B" discharge temperature
  - Compressor "B" discharge pressure
  - Compressor "B" high vibration
  - Compressor "B" lube oil no flow
  - Compressor "B" lubricator low level
  - Compressor "B" jacket water high temperature
  - Compressor "B" jacket water no flow
  - Discharge scrubber level control
  - Discharge scrubber high/high level
  - Package discharge pressure
  - Cooler high vibration

### 12.0 Skid

One (1) structural steel skid, with major equipment mounted on main structural members as per the following:

- Com-Pac Systems standard single-piece skid design
- 3/8" ASME SA-36 smooth bottom plate, seal-welded around skid perimeter
- Two inch (2") environmental containment barrier around perimeter of skid
- Two (2) drain connections located on opposite corners
- Two (2) draw bars, one lactated at each end, suitable for use as lifting lugs.
- Anchor bolt holes drilled w/ jack bolt nuts welded to skid perimeter
- Com-Pac Systems standard skid welding procedures apply
- Skid is not subject to NDE

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## Com-Pac Systems, Inc. Proposal 12-2221R0

### **13.0 Paint**

Package to be painted per Com-Pac Systems standard two part paint system suitable for onshore service and includes the following:

- Surface Preparation – Steel surfaces blasted to SSPC-SP6
- Primer- PPG Low VOC Quick Dry MultiPrime applied to a dry film thickness of 2-4 mils
- Top Coat- PPG Type 35 High Gloss Enamel applied to a dry film thickness of 1.5-2 mils.
- Top Coat Color – At customers discretion

### **14.0 Miscellaneous Inclusions/Exclusions to Scope Of Supply**

The following items are included in our Scope of Supply:

- Mechanical run test of completed package, on air, at Com-Pac Systems works
- Continuity and loop check of controls at Com-Pac Systems works
- Stainless steel tagging
- Preparation for domestic shipping only
- One (1) technician for one (1) week start-up and commissioning assistance
- Three (3) computer discs copies of Com-Pac Systems standard Installation, Operations and Maintenance Manual.

The following items are not included in our Scope of Supply

- Freight to site
- Unloading at site
- Interconnecting wiring
- Interconnecting piping
- Motor starters, switch gear, variable frequency drives and/or power junction boxes
- Heat tracing and/or insulation of any type, other than previously mentioned
- Off-skid and/or interconnecting piping
- Fire/gas detection or suppression equipment
- Unit enclosure HVAC system and/or lifting crane.
- Utility gas piping, filters or silencers, other than specifically mentioned
- Tools, other than previously described
- Alignment or leveling devices, other than specifically mentioned
- Design and supply of foundations, support structures, ladders, platforms, etc.
- Site performance test
- Personal costs of purchaser's/client's and/or third party inspectors.
- Installation costs
- Commissioning and operating spare parts
- Storage or preservation costs
- Spreader bars, shackles or lifting equipment of any kind
- Cable tray
- Tubing tray
- Acoustical study
- Skid dynamic study
- Finite element analysis
- Site specific preventative and/or predictive maintenance plans

# Com-Pac Systems, Inc.

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2412 S. Market St.  
Odessa, Texas 79766

## Com-Pac Systems, Inc. Proposal 12-2221R0

### 15.0 Delivery

Shipment: 22-26 weeks ARO.

*Note 2 - Estimated delivery only. Actual delivery cannot be confirmed until time of order acceptance, receipt of down payment and return receipt of approved drawings*

### 16.0 Price Summary

Price Per Package ..... \$276,050.00  
(US Dollars)

- Payment in United States dollars
- Sales taxes are not included
- Ex-works Com-Pac Systems facility
- Price validity sixty (60) days from the date of proposal

### 17.0 Terms

We propose that Buyer will pay Seller for the work as per the following progress payment schedule and terms with no holdbacks or retention of funds:

- 30% down with order placement
- 20% upon drawing submittal (drawings submittal will be P&ID and General Arrangement)
- 20% upon cooler manufacturer's notification of readiness to ship
- 20% upon compressor manufacturer's notification of readiness to ship
- 10% upon notification of readiness to ship completed package

Thank you for allowing us this opportunity. We hope the products and services provided herein meet your expectations, and will subsequently lead to an order in our favor.

If there are any questions or clarifications regarding this offer please do not hesitate to call.

Respectfully,

Jack Motley

Jack Motley  
Com-Pac Systems, Inc.  
2412 Market  
Odessa, Texas 79766  
Phone - (432) 332-4515  
Fax - (432) 332-0121  
Cell - (432) 208-9083  
E-Mail - [jackmotley@compressorpackaging.com](mailto:jackmotley@compressorpackaging.com)

Rick Mobley

Rick Mobley  
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Phone - (432) 332-4515  
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Cell - (432) 664-2033  
E-Mail - [rickmobley@compressorpackaging.com](mailto:rickmobley@compressorpackaging.com)



**ATTACHMENT VII**  
**Statewide Compliance Statement**  
**Title V Compliance Certification form**

October 9, 2013

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

**Subject: S-1327 ATC Application – Add Crude Oil Tank (Hazelton Lease)  
Federal Major Modification Compliance Certification**

Dear Mr. Scandura:

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

  
\_\_\_\_\_  
Signature

William J. Gillespie

\_\_\_\_\_  
Name

\_\_\_\_\_  
Operations Manager  
Title

**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: VINTAGE PRODUCTION CALIFORNIA, LLC   | 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:   |                       |

**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 forgoing is correct and true:

William Gillespie  
Signature of Responsible Official

Oct 9, 2013  
Date

William J. Gillespie  
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: Yu Vu – Technical Services  
 Date: October 11, 2013  
 Facility Name: Vintage Production LLC  
 Location: S17, T11N, R23W  
 Application #(s): S-1327-209-0  
 Project #: S-1133983

## A. RMR SUMMARY

| RMR Summary  |  |                   |                    |
|--|--|-------------------|--------------------|
| Categories   | Crude Oil Storage Tank<br>(Unit 209-0) | Project<br>Totals | Facility<br>Totals |
| Prioritization Score                               | 0.22                                   | 0.22              | 1.16               |
| Acute Hazard Index                                 | 0.00                                   | 0.00              | 0.01               |
| Chronic Hazard Index                               | 0.00                                   | 0.00              | 0.00               |
| Maximum Individual Cancer Risk (10 <sup>-6</sup> ) | 0.19                                   | 0.19              | 0.69               |
| T-BACT Required?                                   | No                                     |                   |                    |
| Special Permit Conditions?                         | No                                     |                   |                    |

### Proposed Permit Conditions

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

Unit # 209-0

No special conditions are required.

## B. RMR REPORT

### I. Project Description

Technical Services received a request on October 10, 2013, to perform a Risk Management Review for a proposed installation of a 500 BBL crude oil storage tank.

### II. Analysis

Technical Services performed a health risk assessment using the District's "Oilfield Fugitives - Heavy Crude Oil" profile. The cumulative prioritization scores were greater than 1.0, thus modeling was conducted using the AERMOD model, with the parameters outlined below and meteorological data for 2005-2009 from Bakersfield to determine the dispersion factors

(i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid.

| <b>Analysis Parameters<br/>Unit 209-0</b> |             |  |              |
|---|-------------|--|--------------|
| <b>Source Type</b>                        | <b>Area</b> | <b>Location Type</b>                       | <b>Rural</b> |
| <b>X-Length (m)</b>                       | 5.49        | <b>Closest Receptor (m)</b>                | ~260         |
| <b>Y-Length (m)</b>                       | 5.49        | <b>Type of Receptor</b>                    | Residential  |
| <b>Release Height (m)</b>                 | 3.353       | <b>Pollutant Type</b>                      | VOC          |
|   |             | <b>Emission Rate (g/sec-m<sup>2</sup>)</b> | 0.0332       |

### 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 from the project engineer
- B. Additional information from the applicant/project engineer
- C. Toxic emissions summary
- D. Prioritization score
- E. Facility Summary

ATTACHMENT IX  
Draft ATC

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1327-209-0

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

LOCATION: HEAVY OIL WESTERN, KERN COUNTY  
CA

SECTION: NE 17 TOWNSHIP: 11N RANGE: 23W

EQUIPMENT DESCRIPTION:  
500 BBL FIXED-ROOF CRUDE OIL STORAGE TANK (BAKER TANK) WITH P/V VALVE

**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. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

**DRAFT**  
DAVID WARNER, Director of Permit Services

S-1327-209-0 : Oct 14 2013 9:00AM - EDG/EJ/LR : Joint Inspection NOT Required



7. For crude oil with an API gravity of greater than 26 degrees, the TVP shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting RVP to TVP at the tanks maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B of Rule 4623. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB, and US EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)". Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
11. 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 & 4623] Federally Enforceable Through Title V Permit
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 Rule 1070]
13. Permit to Operate S-1327-91-1 shall be canceled upon implementation of ATC . [District Rule 2201] Federally Enforceable Through Title V Permit

**DRAFT**