



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



OCT 06 2014

Mr. Doug Shaffer
Vintage Production California
9600 Ming Ave, Suite 300
Bakersfield, CA

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-8282
Project # 1142405

Dear Mr. Shaffer:

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

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

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

Thank you for your cooperation in this matter.

Sincerely,


Arnaud Marjollet
Director of Permit Services

AM:SD/st

Enclosures

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

Seyed Sadredin
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**Authority to Construct
Application Review**
Major Source, Light Oil, VOC Control Device

Facility Name: Vintage Production California, LLC	Date: September 15, 2014
Mailing Address: 9300 Ming Avenue Bakersfield, CA 93311	Engineer: Steve Davidson
Contact Person: Doug Shaffer	Lead Engineer: Allan Phillips <i>ASure All</i>
Telephone: 661-869-8237	OCT 01 2014
Application #(s): S-8282-113-4, '-122-4, '-143-0, & '-144-0	
Project #: S-1142405	
Deemed Complete: June 10, 2014	

I. Proposal

Vintage Production California, LLC (Vintage) is applying for Authorities to Construct (ATC) permits to install two new VOC Destruction Devices (VDD) and authorize them as control devices for the vapor control systems listed on portable tank operations S-8282-113 and '-122.

Vintage operates under a Title V Permit. This project is a Federal Major Modification and 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). The facility has specifically requested that this project be processed in that manner; therefore, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Vintage must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (Adopted 6/16/11, effective 11/26/12)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
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 these tanks is $\leq 420,000$ gallons, and they store crude oil prior to custody transfer; therefore, this subpart does not apply to the tanks in this project.

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

Rule 4101 Visible Emissions (02/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4311 Flares (6/18/09) – Not applicable see Compliance Section
Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities (04/20/05)
Rule 4801 sulfur Compounds (12/17/92)
Rule 4623 Storage of Organic Liquids (05/19/05)
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. **Project Location**

The equipment may operate at various unspecified locations in Vintage's Light Oil Western stationary source. The equipment will not be 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.

IV. **Process Description**

The applicant is drilling new oil production wells. Once the wells are completed, the applicant will use these tanks and vapor recovery system to test the oil production of the wells and make decisions about future oil well use and operation. The fluid from the well head goes to a well test separator, then to a 3-phase separator where the gas, oil and produced water are split and piped to a gas gathering system, oil storage tank, and produced water storage tank respectively. The liquids are then sent via vacuum truck to an oil treating facility. The gas is routed to a field gas collection system or used in permit exempt equipment.

Currently, VOC emissions from the tanks are controlled to 95% by a shared vapor control system in accordance with tank permits S-8282-113 and '-122s' conditions.

The vapor control system collects vapors from the tanks, and routes the uncondensed vapors to appropriate disposal equipment. Vintage is proposing the option of venting the system to two proposed up to 40 MMBtu/hour VOC Destruction Device (VDD) S-8282-143 and '-144.

V. Equipment Listing

Pre-Project Equipment Description:

ATC S-8282-113-3: 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121, VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, S-8282-136, S-8282-141 AND S-8282-142

ATC S-8282-122-3: 500 BARREL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-92, '93, '94, '95, '96, '97, '98, AND '99 VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, S-8282-136, S-8282-141 AND S-8282-142

Proposed Modification:

Install two new vapor control devices, S-8282-143 and '-144, authorized as additional control devices for the vapor control systems listed on portable tank operations S-8282-113 and '-122.

S-8282-113-4: MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121, VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, '-136, '-141 AND '-142; AUTHORIZE VAPOR CONTROL

**SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED
ON PERMITS S-8282-143 AND '-144**

- S-8282-122-4:** MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-92, '-93, '-94, '-95, '-96, '-97, '-98, AND '-99 VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, '-136, '-141 AND '-142: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED ON PERMITS S-8282-143 AND '-144
- S-8282-143-0:** UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '-122 AND SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY SOURCE
- S-8282-144-0:** UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '-122 AND SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY SOURCE

Post Project Equipment Description:

- S-8282-113-1:** 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121, VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, S-8282-136, S-8282-141, S-8282-142, S-8282-143, and S-8282-144
- S-8282-122-2:** PORTABLE 500 BBL FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-92, '93, '94, '95, '96, '97, '98, AND '99 VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, S-8282-136, S-8282-141, S-8282-142, S-8282-143, and S-8282-144

S-8282-135-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '122 AND SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY SOURCE

S-8282-136-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '122 AND SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY SOURCE

VI. Emission Control Technology Evaluation

The tank vapor control system collects vapors from the tanks, removes entrained liquid in knockout vessels and scrubber vessels, condenses gases in heat exchangers and routes the uncondensed vapors to field gas gathering system or to a VDD. The efficiency of the vapor control system is at least 95%.

VII. Emissions Calculations

Per FYI-111, allowing a vapor control system to vent to a different permitted disposal device or allowing a control device, currently allowed to burn waste gas, to burn waste gas from a different source (provided that the device can continue to meet it's emission limits) is not a change in the method of operation of the vapor control system provided that the vapor control system can continue to meet it's control efficiency requirement. The control efficiency will remain at 95% control; therefore, permits S-8282-113, and '122 are not being modified and do not require calculations.

A. Assumptions

Fugitive Emissions:

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- The fugitive emissions for all tanks are calculated using U.S. EPA Protocol for Equipment Leak Emission Estimates (November 1995) average leak rate emissions factors.
- Only fugitive VOCs emitted from components in light crude oil and gas service are calculated.
- Fugitive emissions from heavy crude oil liquid service components are negligible.
- The percentage of VOCs of the total hydrocarbons is 100%

- The components associated with the vapor recovery system will be subject to 2,000 ppmv leak limitations.

Combustion Emissions:

- The maximum quantity of gas combusted in each VDD will be limited to 40 MMBtu/hr (640 Mscf/day) and 350.4 MMBtu/yr (233.6 MMscf/yr) (Applicant)
- Heating value of flared gas is 1,500 Btu/scf (applicant submitted)
- The combusted natural gas will have a sulfur content less than 0.75 gr/100 scf, (Applicant)
- There is no pilot light associated with the VDD

B. Emission Factors

Fugitive Emissions:

The potential to emit from the fugitive emission will be calculated using U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 5-7 (November 1995). Applicant is proposing use of the average leak rate emissions factors using a leak definition of 2,000 ppmv.

Combustion Emissions:

- $\text{NO}_x = 0.023 \text{ lb/MMbtu}$ – manufacturer
- $\text{SO}_x = 0.0014 \text{ lb/MMbtu}$ – (based on 0.75 gr-scf & 1500 Btu/scf)
- $\text{PM}_{10} = 0.008 \text{ lb/MMBtu}$ - FYI – 83
- $\text{CO} = 0.008 \text{ lb/MMbtu}$ – manufacturer
- $\text{VOC} = 0.004 \text{ lb/MMbtu}$ - manufacturer

C. Calculations

1. Pre-Project Potential to Emit, (PE_1)

Since permits S-8282-143 and '-144 are a new emissions units, the $\text{PE}_1 = 0$

2. Post Project Potential to Emit, (PE_2)

Fugitive Emissions:

Post-project potential to emit is calculated based on the fugitive component counts. The following emission are calculated based on the number of components and the type of components submitted by the applicant.

For permit units S-8282-143 and '-144 (each):

Valves (11) – gas/light liquid (2000 ppm leak threshold)

PE2 = # Components x Average Leak Rate

PE2 = 11 x 0.000014 kg/hr x (52.9109429 lb/day/1 kg/hr)

PE2 = 0.008 lb/day

Connectors (120) – gas/light liquid (2000 ppm leak threshold)

PE2 = # Components x Average Leak Rate

PE2 = 120 x 0.0000086 kg/hr x (52.9109429 lb/day/1 kg/hr)

PE2 = 0.055 lb/day

Flanges (12) – gas/light liquid (2000 ppm leak threshold)

PE2 = # Components x Average Leak Rate

PE2 = 12 x 0.0000026 kg/hr x (52.9109429 lb/day/ 1 kg/hr)

PE2 = 0.002 lb/day

Total Fugitive emissions:

PE2_{VOC} = 0.008 lb/day + 0.055 lb/day + 0.002 lb/day

PE2_{VOC} = 0.065 lb/day = 0.1 lb/day

PE2_{VOC} = 37 lb/yr

Combustion Emissions:

For permit units S-8282-143 and '-144 (each):

Daily Post Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Rating (MMBtu/hr)	Daily Hours of Operation (hrs/day)	PE2 Total (lb/day)
NO _x	0.023	40	24	22.1
SO _x	0.0014	40	24	1.3
PM ₁₀	0.008	40	24	7.7
CO	0.008	40	24	7.7
VOC	0.004	40	24	3.8

Annual Post Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Rating (MMBtu/hr)	Annual Hours of Operation (hrs/yr)	PE2 Total (lb/yr)
NO _x	0.023	40	8760	8059
SO _x	0.0014	40	8760	491
PM ₁₀	0.008	40	8760	2803
CO	0.008	40	8760	2803
VOC	0.004	40	8760	1402

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

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

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

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

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

Facility emissions are already above the Offset and Major Source Thresholds for all criteria pollutants; therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

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

Rule 2410 Major Source Determination:

The facility states, and the District, agrees that the facility is an existing major source for PSD.

6. Baseline Emissions (BE)

a. Annual BE

The annual BE is performed pollutant by pollutant to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold. For this project the annual BE will be performed to calculate quarterly Baseline Emissions (QBE)

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

Since all the equipment is new the BE is equal to zero for all equipment.

7. SB 288 Major Modification

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

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	16,118	50,000	No
SO _x	982	80,000	No
PM ₁₀	5606	30,000	No
VOC	2804	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

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

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

Step 1

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

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

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x	16,118	0	Yes
VOC	982	0	Yes
PM ₁₀	5606	30,000	No
PM _{2.5}	5606	20,000	No
SO _x	2804	80,000	No

Since there is an increase in NO_x and 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 all regulated NSR pollutants, except for those which the District has been classified as non-attainment, and that of those pollutants, the ones emitted from the subject emission units are listed below. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

The facility concedes that it is an existing PSD Major Source.

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
Total PE from New and Modified Units	8.1	0.5	2.8	2.8	2.8
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	No	No	No	No	No

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.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly BE is calculated in the following tables:

QNEC S-8282-135-0 & 136-0 (lb/qtr)			
Pollutant	PE2	BE	QNEC
NO _x	8059	0	2015
SO _x	491	0	123
PM ₁₀	2803	0	701
CO	2803	0	701
VOC	1402	0	351

VIII. Compliance

Rule 2201 - New and Modified Stationary Source Review Rule

Per FYI-111, allowing a vapor control system to vent to a different permitted disposal device or allowing a control device, currently allowed to burn waste gas, to burn waste gas from a different source (provided that the device can continue to meet its emission limits) is not a change in the method of operation of the vapor control system provided that the vapor control system can continue to meet its control efficiency requirement. The control efficiency will remain at 95% control; therefore, permits S-8282-113, and '122 are not being modified and are not subject to Rule 2201.

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

As seen in Section VII.C.2 above, the applicant is proposing to install two VDDs (S-8282-143-0 and '-144-0) each with a PE greater than 2 lb/day for NO_x, SO_x, PM₁₀, CO, and VOC. BACT is triggered for NO_x, PM₁₀, CO, and VOC since the PEs are greater than 2 lbs/day.

Additionally, the fugitive VOC emissions associated with the units are not greater than 2 lbs/day. Therefore, BACT is not triggered for fugitive emissions.

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

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

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

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

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 Major Modification. Therefore, BACT for SB288 major Modification purposes is not triggered for any pollutant.

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

2. BACT Guideline

BACT Guideline 1.4.1, applies to the VDD. [waste gas flare – 15.3 MMbtu/hr, serving a tank vapor control system] (See **Attachment B**)

3. Top-Down BACT Analysis

Pursuant to the attached Top-Down BACT Analysis (see **Attachment B**), BACT has been satisfied with the following:

NO_x: use of VDD
PM₁₀: use of VDD
CO: use of VDD
VOC: use of VDD

B. Offsets

1. Offset Applicability

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

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

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

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NO_x, SO_x, PM₁₀, CO, and VOC. Therefore offset calculations will be required for this project.

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

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,

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

otherwise,

$$BE = HAE$$

As calculated in Section VII.C.6 above, the BE from this unit are equal to zero since the unit is new. 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 and shown in the table below:

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

$$ICCE = 0 \text{ lb/year}$$

Offsets required (lb/yr)			
Pollutant	PE	BE	Offsets Required
NO _x	16,118	0	16,118
SO _x	982	0	982
PM ₁₀	5606	0	5606
CO	5606	0	5606
VOC	2878	0	2804

The project is a Federal Major Modification for NO_x and VOC, therefore the correct offset ratio for NO_x and VOCs is 1.5:1.

Vintage proposes to offset SO_x and PM₁₀ emissions with ERC C-1294-5, originate at a location greater than 15 miles from this project's stationary source; therefore, the correct offset ratio for SO_x and PM₁₀ is 1.5:1.

NO_x

$$\begin{aligned} \text{Offsets Required (lb/year)} &= 16,118 \times 1.5 \\ &= 24,177 \text{ lb NO}_x\text{/year} \end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
6044	6044	6044	6044

The applicant has stated that the facility plans to use ERC C-1290-2 to offset part of the increases in NO_x emissions associated with this project (6044 lb/qtr).

SO_x

$$\begin{aligned}\text{Offsets Required (lb/year)} &= 982 \times 1.5 \\ &= 1473 \text{ lb SO}_x/\text{year}\end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
368	368	368	368

The applicant has stated that the facility plans to use ERC C-1294-5 to offset the increases in SO_x emissions associated with this project (368 lb/qtr).

PM₁₀

$$\begin{aligned}\text{Offsets Required (lb/year)} &= 5606 \times 1.5 \\ &= 8409 \text{ lb PM}_{10}/\text{year}\end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
2102	2102	2102	2102

The applicant has stated that the facility plans to use SO_x ERC C-1294-5 to offset the increases in PM₁₀ emissions associated with this project (2102 lb/qtr). Please note: Per District Rule 2201, Section 4.13.3.1.2, interpollutant offsets between PM₁₀ and PM₁₀ precursors may be allowed.

CO

$$\text{PE2} = 5606 \text{ lb/yr}$$

Notwithstanding the above, Section 4.6.1 of Rule 2201 states that emissions offsets are not required for increases in carbon monoxide in attainment areas provided the applicant demonstrates to the satisfaction of the APCO that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards. The District performed an Ambient Air Quality Analysis (discussed later) and determined that this project will not result in or contribute to a violation of an Ambient Air Quality Standard for CO (see **Attachment VII**). Therefore, CO offsets are not required for this project.

VOC

Offsets Required (lb/year) = 2878×1.5
= 4317 lb VOC/year

Calculating the appropriate quarterly emissions to be offset is as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
1079	1079	1079	1079

The applicant has stated that the facility plans to use ERC S-4301-1 to offset the VOC emissions associated with this project (1079 lb/qtr).

Proposed Rule 2201 (offset) Conditions (S-8282-143-0 and '-144):

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits for the following quantity of emissions: 1st quarter - 3022 lb, 2nd quarter - 3022 lb, 3rd quarter - 3022 lb, and fourth quarter - 3022 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits for the following quantity of emissions: 1st quarter - 2470 lb, 2nd quarter - 2470 lb, 3rd quarter - 2470 lb, and fourth quarter - 2470 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 540 lb, 2nd quarter - 540 lb, 3rd quarter - 540 lb, and fourth quarter - 540 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- {GC# 1983} ERC Certificate Numbers C-1290-2, C-1294-5, and S-4031-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSPE 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, this project does not constitute an SB 288 Major Modification; therefore, public noticing for SB 288 Major Modification purposes is not required.

As demonstrated in Sections VII.C.8, this project is a Federal Major Modification. Therefore, public noticing Federal Major Modification purposes is required.

b. PE > 100 lb/day

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

c. Offset Threshold

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

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

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	PE2 (lb/year)	PE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	16,118	0	16,118	20,000 lb/year	No
SO _x	980	0	980	20,000 lb/year	No
PM ₁₀	5606	0	5606	20,000 lb/year	No
CO	5606	0	5606	20,000 lb/year	No
VOC	2878	0	2879	20,000 lb/year	No

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

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 the VDD, the DELs are stated in the form of emission factors and the maximum unit combustion rating.

Proposed Rule 2201 (DEL) Conditions:

- Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO_x/MMBtu; 0.014 lb-SO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

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

- Records of monthly natural gas combusted shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Since this project is a Federal Major Modification, the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

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. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards

This rule incorporates the New Source Performance Standards from 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.

Subpart OOOO could potentially apply to the tanks. However, pursuant to 40 CFR 60.5395, this subpart does not apply since the emissions from each of the uncontrolled tanks are estimated to be less than 6 tons per year as shown in Attachment D.

Therefore, the requirements of these subparts 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 C**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-8282-143-0	3.98 per million	Yes
S-8282-144-0	3.98 per million	Yes

Discussion of T-BACT

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

For this project T-BACT is triggered for PM₁₀ and VOC. T-BACT is satisfied with BACT VOC (see Attachment C), which is the use of a VOC Destruction device; therefore, compliance with the District's Risk Management Policy is expected.

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

The following conditions will be placed on the permits to ensure compliance:

1. This unit may not operate within 420 meters (1,378 feet) of a residential receptor [District Rules 2201]
2. This unit may not operate within 100 meters (305 feet) of a business receptor and/or the facility boundary [District Rules 2201]
3. This unit may only operate within the portion of Township 32S, Range 25E directly north of S. Lake Road. [District Rules 2201]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

Compliance is expected

Rule 4311 Flares

This Rule applies to operations involving the use of flares. This Rule defines a flare as:

A direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.

The VDD pre-mixes air and combustion gas; therefore, this Rule does not apply.

Rule 4409 Components at Light Crude Oil Production Facilities, Natural Gas Facilities, and Natural Gas Processing Facilities

The facility is subject to 4409 as seen by permit conditions on their facility wide permit. Continued compliance is expected. The tanks & components within 5 feet of the tanks are subject to Rule 4623, therefore these components are not subject to Rule 4409.

Rule 4801 sulfur Compounds (12/17/92)

The provisions of this rule requires that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes.

If the equipment is maintained in good and condition and operated properly then the discharge from the VDD is expected to be less than two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂). Compliance with this rule is expected.

Rule 4623, Storage of Organic Liquids

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

The affected tanks are served by a vapor control system that has a control efficiency of at least 95%. This rule also requires the tank and tank vapor control system to be maintained in a leak-free condition. Leak-free is defined in the rule

as no readings on a portable VOC detection device greater than 10,000 ppmv above background and no dripping of organic liquid at a rate of more than 3 drops per minute.

Tanks S-8282-113 and -122 are equipped with a vapor control system with a VOC control efficiency of 95%. No throughput/TVP records are required to be kept for fixed-roof tanks equipped with vapor control. Applicant has elected to participate in the voluntary tank preventive inspection, maintenance, and tank cleaning program. Tank cleaning will be conducted according to the requirements of Table 6.

Compliance with the requirements of this rule is expected.

CH&SC 42301.6 California Health & Safety Code (School Notice)

Vintage will be restricted by permit condition not to operate 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)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001.

The basic purposes of CEQA are to:

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

District is a Lead Agency & GHG emissions increases are from the combustion of fossil fuel other than jet fuels.

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying project complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG

emissions increases associated with this project would have a less than significant individual and cumulative 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. Recommendations

Issue Authorities to S-8282-113-24, '-122-4, '-143-0, and '-144-0 subject to the permit conditions on the attached draft Authority to Construct.

X. Billing Information

Permit Number	Fee Schedule	Fee Description	Annual Fee
S-8282-113-1	3020-5-C	500 bbls	\$135
S-8282-122-2	3020-05-C	500 bbls	\$135
S-8282-135-0	3020-2-H	40 MMBtu/hr	\$1030
S-8282-136-0	3020-2-H	40 MMBtu/hr	\$1030

ATTACHMENT: A	Existing ATCs
ATTACHMENT: B	BACT Guideline 1.4.1 and Top-down BACT Analysis
ATTACHMENT: C	Health Risk Assessment
ATTACHMENT: D	VDD Manufacture's Information
ATTACHMENT: E	Draft ATCs

ATTACHMENT A

Existing ATCs



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-8282-113-3

ISSUANCE DATE: 05/19/2014

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121, VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-123, S-8282-135, AND S-8282-136: REMOVE REFERENCE TO PERMIT S-8282-123 AND AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED ON PERMITS S-8282-141 AND '-142

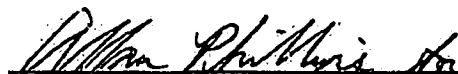
CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. ATCs S-8282-113-2 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
3. ATCs S-8282-141-0 and '-142-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
5. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]
6. Permittee shall notify the District Compliance Division in writing of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

S-8282-113-3 May 19, 2014 11:54 AM - DAY 0003 : Joint Inspection NOT Required

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7. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Vapors shall be discharged to field gas gathering system or a VOC destruction device listed on permit S-8282-135, or S-8282-136. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 4409 and 4623] Federally Enforceable Through Title V Permit
9. For the components associated with the tank and components within 5 foot of the tank, a leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. For the components associated with the vapor control equipment and other equipment at the facility, a leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 2,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
12. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 0.44 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623] Federally Enforceable Through Title V Permit
18. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Upon detection of a gas leak, the operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
21. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623] Federally Enforceable Through Title V Permit
22. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623] Federally Enforceable Through Title V Permit
23. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F; solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623] Federally Enforceable Through Title V Permit
24. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623] Federally Enforceable Through Title V Permit
25. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623] Federally Enforceable Through Title V Permit
28. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-8282-122-3

ISSUANCE DATE: 05/19/2014

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BARREL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-92, '93, '94, '95, '96, '97, '98, AND '99 VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-123, S-8282-135, AND S-8282-136: REMOVE REFERENCE TO PERMIT S-8282-123 AND AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED ON PERMITS S-8282-141 AND '-142

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. ATCs S-8282-122-2 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
3. ATCs S-8282-141-0 and '-142-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
5. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 41.02]
6. Permittee shall notify the District Compliance Division in writing of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]
7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services
S-8282-122-3: May 19 2014 11:43AM - DAVID BOB : Job Inspection NOT Required

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

8. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that routes all VOCs from the storage tank to a field gas gathering system or a VOC destruction device listed on permit S-8282-135, or S-8282-136. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for all other components including the tank vapor control system, well test separator and three phase separator. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.12 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. VOC fugitive emissions from tank vapor control system with compressor shall not exceed 0.064 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC fugitive emissions from well test separator and three phase separator shall not exceed 0.26 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank vapor control system, compressor and separators calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
18. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
19. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
20. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
22. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
23. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
24. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
26. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623] Federally Enforceable Through Title V Permit
28. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
30. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623] Federally Enforceable Through Title V Permit
31. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit

ATTACHMENT B

BACT Guideline 1.4.1 and Top-down BACT Analysis

**San Joaquin Valley
Unified Air Pollution Control District**

Best Available Control Technology (BACT) Guideline 1.4.1*

Last Update 11/9/1995

Waste Gas Flare - 15.3 MMBtu/hr, Serving a Tank Vapor Control System

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Steam-assisted or air-assisted when steam unavailable		
SOx	Pilot Light Fired Solely on LPG or Natural Gas		
PM10	Steam-assisted with smokeless combustion or Air-assisted flare with smokeless combustion when steam unavailable. Pilot Light Fired Solely on LPG or Natural Gas		
NOx	Steam-assisted or air-assisted when steam unavailable		
CO	Steam-assisted or air-assisted when steam unavailable		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Top Down BACT Analysis

1. BACT Analysis for NO_x Emissions:

a. Step 1 - Identify all control technologies

Steam-assisted
Air assisted when steam unavailable
VOC Destruction Device (VDD)

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the VDD which has equivalent control effectiveness as the other control technologies; therefore, a cost analysis is not required.

e. Step 5 - Select BACT

BACT for NO_x emissions from this operation is the VDD; therefore BACT for NO_x emissions is satisfied.

3. BACT Analysis for PM₁₀ Emissions:

a. Step 1 - Identify all control technologies

Steam-assisted with smokeless combustion

Air-assisted with smokeless combustion when steam unavailable.

Pilot Light Fired Solely on LPG or Natural Gas

VDD

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

The VDD does not have a pilot light.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the VDD which has an equivalent control effectiveness as the other technologies; therefore, a cost analysis is not required.

e. Step 5 - Select BACT

BACT for PM₁₀ emissions from operation is the VDD; therefore BACT for PM₁₀ emissions is satisfied.

4. BACT Analysis for CO Emissions:

a. Step 1 - Identify all control technologies

Steam-assisted with smokeless combustion

Air-assisted with smokeless combustion when steam unavailable.

VDD

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the VDD which has an equivalent control effectiveness as the other technologies; therefore, a cost analysis is not required.

e. Step 5 - Select BACT

BACT for CO emissions from operation is the VDD; therefore BACT for CO emissions is satisfied.

NO_x, SO_x, PM₁₀, CO, and VOC

3. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

Steam-assisted with smokeless combustion

Air-assisted with smokeless combustion when steam unavailable.

VDD

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the VDD which has an equivalent control effectiveness as the other technologies; therefore, a cost analysis is not required.

e. Step 5 - Select BACT

BACT for VOC emissions from operation is the VDD; therefore BACT for VOC emissions is satisfied.

ATTACHMENT C

Health Risk Assessment

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Steve Davidson – Permit Services
From: Yu Vu – Technical Services
Date: September 4, 2014
Facility Name: Vintage Production California, LLC
Location: Township 32S, Range 25E
Application #(s): S-8282-143 and -144
Project #: S-1142405

A. RMR SUMMARY

RMR Summary			
Categories	VOC Destruction Devices (Units 143-0 and 144-0)	Project Totals	Facility Totals*
Prioritization Score	0.77 (each)	1.55	>1
Acute Hazard Index	0.00 (each)	0.01	0.84
Chronic Hazard Index	0.00 (each)	0.00	0.20
Maximum Individual Cancer Risk (10^{-6})	3.98 (each)	7.95	9.75
T-BACT Required?	Yes		
Special Permit Conditions?	Yes		

*For a detailed explanation of how the total facility risk was determined, please refer to the PLEASE READ BEFORE PROCESSING NEW PROJECTS document and Oxy Risk spreadsheet located in the root directory of the project folder for S-382.

1. Proposed Permit Conditions

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

Unit #s 143-0 and 144-0

- This unit may not operate within 420 meters (1,378 feet) of a residential receptor [District Rules 2201]
- This unit may not operate within 100 meters (305 feet) of a business receptor and/or the facility boundary [District Rules 2201]
- This unit may only operate within the portion of Township 32S, Range 25E directly north of S. Lake Road. [District Rules 2201]
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

T-BACT is required for this unit because of emissions of PAH's which are VOCs. In accordance with District policy, BACT for this unit will be considered to be T-BACT.

B. RMR REPORT

I. Project Description

Technical Services received a request on June 19, 2014, to perform a Risk Management Review for a proposed installation of two VOC destruction devices for use at various locations within the portion of Township 32S, Range 25E directly north of S. Lake Road. This project also requires an ambient air quality analysis (AAQA) because it triggers a public notice.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using the District's "Oilfield Natural Gas-Fired + Waste Gas Flare" spreadsheet were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Missouri Triangle to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid.

Because this project involved sources operating at various unspecified locations within an area, the sources were modeled at what was considered a worst case operating location(s). From there, a minimum receptor distance(s) (for both residents and businesses) was determined to allow the unit to operate without exceeding the risk thresholds. Please see the README document in the project folder for more detail.

The dispersion factors from AERMOD were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 143-0 and 144-0			
Source Type	Point	Location Type	Rural
Stack Height (m)	12.192	Closest Receptor (m)	Variable
Stack Diameter. (m)	1.829	Type of Receptor	Residential
Stack Exit Velocity (m/s)	2.134	Max Hours per Year	8760
Stack Exit Temp. (°K)	1477.594		

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x and PM_{10i} as well as a RMR. The emission rates used for criteria pollutant modeling were 0.32 lb/hr CO, 0.92 lb/hr NO_x, 0.06 lb/hr SO_x, and 0.32 lb/hr PM_{10i}/PM_{2.5}.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ¹	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ²	Pass ²
PM _{2.5}	X	X	X	Pass ²	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.

²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk associated with the project is greater than 1.0 in a million, but less than 10 in a million. **In accordance with the District's Risk Management Policy, the project is approved with Toxic Best Available Control Technology (T-BACT).**

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

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

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 D

VDD Manufacture's Information

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-8282-113-4

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121, VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, '-136, '-141 AND '-142: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED ON PERMITS S-8282-143 AND '-144

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. ATCs S-8282-113-3 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ATCs S-8282-143-0 and '-144-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
6. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102] 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, APCD

Arnaud Marjolet, Director of Permit Services

0-0282-113-4 : Oct 1 2014 11:33AM - DAVINSON : Joint Inspection Required with DAVINSON

7. Permittee shall notify the District Compliance Division in writing of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Vapors shall be discharged to field gas gathering system or a VOC destruction device listed on permit S-8282-135, or S-8282-136. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 4409 and 4623] Federally Enforceable Through Title V Permit
10. For the components associated with the tank and components within 5 foot of the tank, a leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. For the components associated with the vapor control equipment and other equipment at the facility, a leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 2,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
13. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 0.44 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate component count for tank according to EPA's "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Upon detection of a gas leak, the operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
21. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
22. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623] Federally Enforceable Through Title V Permit
23. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623] Federally Enforceable Through Title V Permit
24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623] Federally Enforceable Through Title V Permit
26. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
28. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623] Federally Enforceable Through Title V Permit
29. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-8282-122-4

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH PERMIT EXEMPT WELL TEST SEPARATOR, 3-PHASE SEPARATOR, SERVED BY VAPOR CONTROL SYSTEM SHARED WITH S-8282-92, '-93, '-94, '-95, '-96, '-97, '-98, AND '-99 VENTED TO APPROVED GAS GATHERING SYSTEM OR VOC DESTRUCTION DEVICES LISTED ON S-8282-135, '-136, '-141 AND '-142: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES LISTED ON PERMITS S-8282-143 AND '-144

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. ATCs S-8282-122-3 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ATCs S-8282-143-0 and '-144-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
6. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]

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.

Sayed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

8-8242-122-4: Oct 1 2014 11:23AM - DAVIDSOS : Joint Inspection Required with DAVIDSOS

7. Permittee shall notify the District Compliance Division in writing of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that routes all VOCs from the storage tank to a field gas gathering system or a VOC destruction device listed on permit S-8282-135, or S-8282-136. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Storage tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv) for tank components and for components in piping from the tank to vapor control system truck line and 2,000 parts per million by volume (ppmv) for all other components including the tank vapor control system, well test separator and three phase separator. The ppmv readings, as methane above background, shall be taken using a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. VOC fugitive emissions from tank and from components in piping from tank to vapor control system trunk line shall not exceed 0.12 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC fugitive emissions from tank vapor control system with compressor shall not exceed 0.064 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. VOC fugitive emissions from well well test separator and three phase separator shall not exceed 0.26 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from tank components and from components in piping from the tank to vapor control system truck line calculated using (ALR) equations for a 10,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from the tank vapor control system, compressor and separators calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
17. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of Rule 4409. [District Rule 4409] Federally Enforceable Through Title V Permit
19. Any tank gauging or sampling device on storage tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
20. Operator shall visually inspect storage tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shell and roof of the uninsulated tank for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Upon detection of a liquid leak from storage tank, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
22. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 parts per million by volume (ppmv) for the tank and 2,000 parts per million by volume (ppmv) for the tank vapor control system measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
23. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
24. If a component type for storage tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
25. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623] Federally Enforceable Through Title V Permit
28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623] Federally Enforceable Through Title V Permit
29. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623] Federally Enforceable Through Title V Permit
30. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
31. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623] Federally Enforceable Through Title V Permit
32. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-8282-143-0

ISSUANCE DATE: DRAFT

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT)
AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '122 AND
SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY
SOURCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. ATCs S-8282-113-4 and '122-4 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 3022 lb, 2nd quarter - 3022 lb, 3rd quarter - 3022 lb, and fourth quarter - 3022 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 1235 lb, 2nd quarter - 1235 lb, 3rd quarter - 1235 lb, and fourth quarter - 1235 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

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.

Sayed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

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6. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 540 lb, 2nd quarter - 540 lb, 3rd quarter - 540 lb, and fourth quarter - 540 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
7. ERC Certificate Numbers C-1290-2, C-1294-5, and S-4031-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters [District Rule 2201] Federally Enforceable Through Title V Permit
10. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
11. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This unit may not operate within 420 meters (1,378 feet) of a residential receptor [District Rule 4102] Federally Enforceable Through Title V Permit
13. This unit may not operate within 100 meters (305 feet) of a business receptor and/or the facility boundary. [District Rule 4102] Federally Enforceable Through Title V Permit
14. This unit may only operate within the portion of Township 32S, Range 25E directly north of S. Lake Road. [District Rule 4102] Federally Enforceable Through Title V Permit
15. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
16. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
17. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
18. 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. [District Rule 4101] Federally Enforceable Through Title V Permit
19. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NOx/MMBtu; 0.014 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall document compliance with the annual heat input limit required by this permit by calculation using the volume of gas combusted at each location and the HHV of the gas. The HHV of the gas shall be determined by sampling and testing at each location of operation within a week of startup at that location. [District Rule 2201] Federally Enforceable Through Title V Permit
21. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Records of monthly natural gas combusted shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-8282-144-0

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:

UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT)
AUTHORIZED TO SERVE TANK VAPOR CONTROL SYSTEMS LISTED ON PERMITS S-8282-113 AND/OR '122 AND
SUBJECT TEST WELLS AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE LIGHT OIL WESTERN STATIONARY
SOURCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. ATCs S-8282-113-4 and '122-4 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 3022 lb, 2nd quarter - 3022 lb, 3rd quarter - 3022 lb, and fourth quarter - 3022 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 1235 lb, 2nd quarter - 1235 lb, 3rd quarter - 1235 lb, and fourth quarter - 1235 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

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.

Sayed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

S-8282-144-0: Oct 1 9:14 11:33AM - DAVIUSOB : Joint Inspection Required with DAVIUSOB

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6. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 540 lb, 2nd quarter - 540 lb, 3rd quarter - 540 lb, and fourth quarter - 540 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
7. ERC Certificate Numbers C-1290-2, C-1294-5, and S-4031-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon implementation of this ATC and surrender of the aforementioned ERC Certificates, this unit is fully offset for NOx, SOx, PM10, and VOCs [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters [District Rule 2201] Federally Enforceable Through Title V Permit
11. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
12. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
13. This unit may not operate within 420 meters (1,378 feet) of a residential receptor [District Rule 4102] Federally Enforceable Through Title V Permit
14. This unit may not operate within 100 meters (305 feet) of a business receptor and/or the facility boundary. [District Rule 4102] Federally Enforceable Through Title V Permit
15. This unit may only operate within the portion of Township 32S, Range 25E directly north of S. Lake Road. [District Rule 4102] Federally Enforceable Through Title V Permit
16. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
17. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
18. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
19. 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. [District Rule 4101] Federally Enforceable Through Title V Permit
20. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NOx/MMBtu; 0.014 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall document compliance with the annual heat input limit required by this permit by calculation using the volume of gas combusted at each location and the HHV of the gas. The HHV of the gas shall be determined by sampling and testing at each location of operation within a week of startup at that location. [District Rule 2201] Federally Enforceable Through Title V Permit
22. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

23. Records of monthly natural gas combusted shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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