



OCT 10 2013

Mr. Joey Barulich  
Vintage Production California, LLC  
9300 Ming Avenue  
Bakersfield, CA 93311

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)**  
**District Facility # S-8282**  
**Project # S-1133536**

Dear Mr. Barulich:

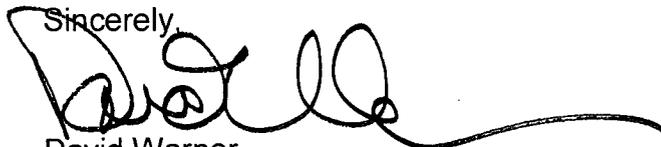
Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Vintage proposes to modify the tank vapor and well test control system listed on tank permit S-8282-113, '-122 by allowing the option of incinerating the vapors in a multiple vapor destruction devices.

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,



David Warner  
Director of Permit Services

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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

Facility Name: Vintage Production California, LLC  
Mailing Address: 9300 Ming Avenue  
Bakersfield, CA 93311

Date: September 11, 2013

Engineer: Steve Davidson

Lead Engineer: Allan Phillips *AP SUPERVISOR*

Contact Person: Joey Barulich  
Telephone: 661-869-8075

Application #(s): S-8282-113-2, '-122-2, '-123-1, '-135-0, & '-136-0

Project #: S-1133536

Deemed Complete: September 4, 2013

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**I. Proposal**

Vintage Production California, LLC (Vintage) is applying for Authorities to Construct (ATC) permits to expand the equipment controlled by the vapor destruction device (VDD) listed on permit S-8282-123 to include tank S-8282-122. Additionally, Vintage is requesting to install two new VDDs (S-8282-135 and '-136) and authorize them as possible 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 2520 Federally Mandated Operating Permits (6/21/01)  
Rule 2410 Prevention of Significant Deterioration (Adopted 6/16/11, effective 11/26/12)  
Rule 4001 New Source Performance Standards,

Subpart Kb (Amended 4/14/99) - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) Is not applicable. This subpart does not apply to vessels with a design capacity ≤

1,589.874 m<sup>3</sup> ( $\leq$  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 4801 sulfur Compounds ( 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 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 locations in Vintage's Light Oil Western stationary source. The facility is not located within 1,000 feet of the outer boundary of any K-12 school. Therefore, pursuant to CH&SC 42301.6, California Health and Safety Code (School Notice), public notification is not required.

### 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-8282-135 and '-136. Additionally Vintage is proposing for tank S-8282-113 to have the option of venting the control system to VDD S-8282-123.

## V. Equipment Listing

### Pre-Project Equipment Description:

- ATC S-8282-113-1: MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH WELL TEST SEPARATOR, 3-PHASE SEPARATOR, AND SERVED BY VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSOR, AND PIPING, VENTED TO APPROVED GAS GATHERING SYSTEM, SERVING TANKS S-8282-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121: ADD OPTIONAL USE OF UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES IN PARALLEL LISTED ON PERMIT S-8282-123
- ATC S-8282-122-0: PORTABLE 500 BARREL 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 (REISSUE OF ATC S-1216-188-0)
- ATC S-8282-123-0: TANK VAPOR CONTROL SYSTEM INCLUDING UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES SERVING TANKS S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121 AND SUBJECT TEST WELL(S) (REVISED 7/30/13)

### Proposed Modification:

Expand the equipment authorized to be controlled by the vapor control device listed on permit S-8282-122 to include tanks S-8282-122, '-92, '-93, '-94, '-95, '-96, '-97, '-98, '-99, and '-113.

Install two new vapor control devices, S-8282-135 and '-136, authorized as additional control devices for the vapor control systems listed on portable tank operations S-8282-113 and '-122.

- S-8282-113-2: MODIFICATION OF 500 BBL PORTABLE FIXED ROOF TANK WITH WELL TEST SEPARATOR, 3-PHASE SEPARATOR, AND SERVED BY VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSOR, AND PIPING SERVING TANKS 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: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES S-8282-135-0, AND '-136-0
- S-8282-122-2: MODIFICATION OF PORTABLE 500 BARREL 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 (REISSUE OF ATC S-1216-188-0): AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES S-8282-123, 135-0, AND S-8282-136-0
- S-8282-123-1: MODIFICATION OF TANK VAPOR CONTROL SYSTEM INCLUDING UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES SERVING TANKS S-8282-122, '-92, '-93, '-94, '-95, '-96, '-97, '-98, '-99, '-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121 AND SUBJECT TEST WELL(S): AUTHORIZE COMBUSTION OF VAPORS FROM THE CONTROL SYSTEM LISTED ON PERMIT S-8282-122
- S-8282-135-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS FOR WELL TESTING, WELL VENT CONTROL, EQUIPMENT SHUTDOWN, EMERGENCIES AND VAPOR CONTROL OF TANKS S-8280-122, '-92, '-93, '-94, '-95, '-96, '-97, '-98, '-99, '-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121, AND '-122
- S-8282-136-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED FOR OPERATION AT VARIOUS UNSPECIFIED LOCATIONS FOR WELL TESTING, WELL VENT CONTROL, EQUIPMENT SHUTDOWN, EMERGENCIES AND VAPOR CONTROL OF TANKS S-8280-122, '-92, '-93, '-94, '-95, '-96, '-97, '-98, '-99, '-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121, AND '-122

Post Project Equipment Description:

- S-8282-113-1: 500 BBL PORTABLE FIXED ROOF TANK WITH WELL TEST SEPARATOR, 3-PHASE SEPARATOR, AND SERVED BY VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSOR, AND PIPING SERVING TANKS 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-8282-135-0, AND S-8282-136-0
- S-8282-122-2: PORTABLE 500 BARREL 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-8282-135-0, AND S-8282-136-0
- S-8282-123-1: TANK VAPOR CONTROL SYSTEM INCLUDING UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES SERVING TANK VAPOR CONTROL SYSTEM LISTED ON S-8282-113, '-122, AND SUBJECT TEST WELL(S)
- S-8282-135-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE THE TANK VAPOR CONTROL SYSTEM LISTED ON S-8282-113, '-122, AND SUBJECT TEST WELL(S) AT VARIOUS UNSPECIFIED LOCATIONS
- S-8282-136-0: UP TO 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT) AUTHORIZED TO SERVE THE TANK VAPOR CONTROL SYSTEM LISTED ON S-8282-113, '-122, AND SUBJECT TEST WELL(S) AT VARIOUS UNSPECIFIED LOCATIONS

**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, '-122, and '-123 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 960 MMBtu/yr (15,360 Mscf/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:

- NO<sub>x</sub> = 0.023 lb/MMbtu – manufacturer
- SO<sub>x</sub> = 0.0014 lb/MMbtu – (based on 0.75 gr-scf & 1500 Btu/scf)
- PM<sub>10</sub> = 0.008 lb/MMbtu - FYI – 83
- CO = 0.008 lb/MMbtu – manufacturer
- VOC = 0.004 lb/MMbtu - manufacturer

**C. Calculations**

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

Since permits S-8282-135 and '-136 are a new emissions units, the PE<sub>1</sub> = 0

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

**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-8282-135 and '-136 (each):**

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

$$\begin{aligned} PE_2 &= \# \text{ Components} \times \text{Average Leak Rate} \\ PE_2 &= 11 \times 0.000014 \text{ kg/hr} \times (52.9109429 \text{ lb/day}/1 \text{ kg/hr}) \\ PE_2 &= 0.008 \text{ lb/day} \end{aligned}$$

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

$$\begin{aligned} PE_2 &= \# \text{ Components} \times \text{Average Leak Rate} \\ PE_2 &= 120 \times 0.0000086 \text{ kg/hr} \times (52.9109429 \text{ lb/day}/1 \text{ kg/hr}) \\ PE_2 &= 0.055 \text{ lb/day} \end{aligned}$$

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

$$\begin{aligned} PE_2 &= \# \text{ Components} \times \text{Average Leak Rate} \\ PE_2 &= 12 \times 0.0000026 \text{ kg/hr} \times (52.9109429 \text{ lb/day}/1 \text{ kg/hr}) \\ PE_2 &= 0.002 \text{ lb/day} \end{aligned}$$

**Total Fugitive emissions:**

$$\begin{aligned} PE_{2\text{VOC}} &= 0.008 \text{ lb/day} + 0.055 \text{ lb/day} + 0.002 \text{ lb/day} \\ PE_{2\text{VOC}} &= 0.065 \text{ lb/day} = 0.1 \text{ lb/day} \end{aligned}$$

$$PE_{2\text{VOC}} = 37 \text{ lb/yr}$$

**Combustion Emissions:**

**For permit units S-8282-135 and '-136 (each):**

Daily Post Project Emissions				
Pollutant	Emissions Factor (lb/MMbtu)	Rating (MMBtu/hr)	Daily Hours of Operation (hrs/day)	PE2 Total (lb/day)
NO <sub>x</sub>	0.023	40	24	22.1
SO <sub>x</sub>	0.0014	40	24	1.3
PM <sub>10</sub>	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 <sub>x</sub>	0.023	40	8760	8059
SO <sub>x</sub>	0.0014	40	8760	491
PM <sub>10</sub>	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 <sub>x</sub>	16,118	50,000	No
SO <sub>x</sub>	982	80,000	No
PM <sub>10</sub>	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 <sub>x</sub>	16,118	0	Yes
VOC	982	0	Yes
PM <sub>10</sub>	5606	30,000	No
PM <sub>2.5</sub>	5606	20,000	No
SO <sub>x</sub>	2804	80,000	No

Since there is an increase in NO<sub>x</sub> 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:

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

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	CO2e*
Total PE from New and Modified Units	8.1	0.5	2.8	2.8	2.8	40,997
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	No	No	No	No	No	No

\*calculated in Attachment E

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:

<b>QNEC S-8282-135-0 &amp; 136-0 (lb/qtr)</b>			
<b>Pollutant</b>	<b>PE2</b>	<b>BE</b>	<b>QNEC</b>
NO <sub>x</sub>	2015	0	2015
SO <sub>x</sub>	123	0	123
PM <sub>10</sub>	701	0	701
CO	701	0	701
VOC	351	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, '-122, and '-123 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\*:

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

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

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

As seen in Section VII.C.2 above, the applicant is proposing to install two VDDs (S-8282-135-0 and '-136-0) with a PE greater than 2 lb/day for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. BACT is triggered for NO<sub>x</sub>, PM<sub>10</sub>, 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<sub>x</sub> and VOC emissions. Therefore, BACT is triggered for NO<sub>x</sub> and VOC for the VDD.

**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:

- NOx: use of VDD
- PM<sub>10</sub>: 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 <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, 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) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = 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:

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

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

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

Assuming an offset ratio of 1.5:1, the amount of ERCs that need to be withdrawn is:

**NO<sub>x</sub>**

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

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

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

The applicant has stated that the facility plans to use daughters of certificates ERC N-805-2, N-824-2, S-2865-2, S-3032-2, S-3031-2, S-3139-2, S-2806-2, and N-1045-2 to offset part of the increases in NO<sub>x</sub> emissions associated with this project (6044 lb/qtr).

**SO<sub>x</sub>**

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

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

$$\begin{array}{cccc}\frac{1^{\text{st}} \text{ Quarter}}{368} & \frac{2^{\text{nd}} \text{ Quarter}}{368} & \frac{3^{\text{rd}} \text{ Quarter}}{368} & \frac{4^{\text{th}} \text{ Quarter}}{368}\end{array}$$

The applicant has stated that the facility plans to use ERC C-1139-5 to offset part of the increases in SO<sub>x</sub> emissions associated with this project (368 lb/qtr).

**PM<sub>10</sub>**

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

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

$$\begin{array}{cccc}\frac{1^{\text{st}} \text{ Quarter}}{2102} & \frac{2^{\text{nd}} \text{ Quarter}}{2102} & \frac{3^{\text{rd}} \text{ Quarter}}{2102} & \frac{4^{\text{th}} \text{ Quarter}}{2102}\end{array}$$

The applicant has stated that the facility plans to use ERC S-2461-4, C-885-4, N-677-4, and N-117-4 to offset part of the increases in PM<sub>10</sub> emissions associated with this project (2102 lb/qtr).

**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**

$$\begin{aligned} \text{Offsets Required (lb/year)} &= 2878 \times 1.5 \\ &= 4317 \text{ lb VOC/year} \end{aligned}$$

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

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

The applicant has stated that the facility plans to use ERC N-998-1 to offset part of the increases in SO<sub>x</sub> emissions associated with this project (1079 lb/qtr).

**Proposed Rule 2201 (offset) Conditions (S-8282-135-0):**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> 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<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 184 lb, 2nd quarter – 184 lb, 3rd quarter - 184 lb, and fourth quarter - 184 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 PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 1051 lb, 2nd quarter – 1051 lb, 3rd quarter - 1051 lb, and fourth quarter - 1051 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 N-805-2, N-824-2, S-2865-2, S-3032-2, S-3031-2, S-3139-2, S-2806-2, N-1045-2, C-1139-5, S-2461-4, C-885-4, N-677-4, N-117-4, and N-998-1 (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]

**Proposed Rule 2201 (offset) Conditions (S-8282-136-0):**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> 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<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 184 lb, 2nd quarter - 184 lb, 3rd quarter - 184 lb, and fourth quarter - 184 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 PM<sub>10</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 1051 lb, 2nd quarter - 1051 lb, 3rd quarter - 1051 lb, and fourth quarter - 1051 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 - 539 lb, 2nd quarter - 539 lb, 3rd quarter - 539 lb, and fourth quarter - 539 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 N-805-2, N-824-2, S-2865-2, S-3032-2, S-3031-2, S-3139-2, S-2806-2, N-1045-2, C-1139-5, S-2461-4, C-885-4, N-677-4, N-117-4, and N-998-1 (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 <sub>x</sub>	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	No
SO <sub>x</sub>	>54,750 lb/year	>54,750 lb/year	54,750 lb/year	No
PM <sub>10</sub>	>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 <sub>x</sub>	16,118	0	16,118	20,000 lb/year	No
SO <sub>x</sub>	980	0	980	20,000 lb/year	No
PM <sub>10</sub>	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-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]

**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 (**Appendix 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:

<b>HRA Summary</b>		
<b>Unit</b>	<b>Total Cancer Risk</b>	<b>T-BACT Required</b>
Units 135-0 & 136-0	0.088 per million	No

### **Discussion of T-BACT**

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

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix 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 ATCs to ensure compliance:

- 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]
- The flare must operate at least 1,000 feet from the property boundary.

### **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 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)**

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

**California Environmental Quality Act (CEQA)**

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes

and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001.

The basic purposes of CEQA are to:

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

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

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

This facility complies with the California Air Resources Board (ARB) Cap and Trade regulation. Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap and Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change. Therefore the project has a less than significant individual and cumulative impact on global climate change and Best Performance Standards or the mitigation of greenhouse gases are not required.

#### **District CEQA Findings**

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

**IX. Recommendations**

Issue Authorities to S-8282-113-2, '-122-2, '-123-1, '-135-0, and '-136-0 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-8282-123-0	3020-2-H	80 MMBtu/hr	\$1030
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 1.3.1 and Top-down BACT Analysis  
ATTACHMENT: C Health Risk Assessment  
ATTACHMENT: D VDD Manufacture's Information  
ATTACHMENT: E GHG Calculations  
ATTACHMENT: F Draft ATCs

# **ATTACHMENT A**

## **Existing ATC**



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

## AUTHORITY TO CONSTRUCT

PERMIT NO: S-8282-113-1

ISSUANCE DATE: 07/23/2013

**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 WELL TEST SEPARATOR, 3-PHASE SEPARATOR, AND SERVED BY VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSOR, AND PIPING, VENTED TO APPROVED GAS GATHERING SYSTEM, SERVING TANKS S-8282-114, '-115, '-116, '-117, '-118, '-119, '-120, AND '-121: ADD OPTIONAL USE OF UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES IN PARALLEL LISTED ON PERMIT S-8282-123

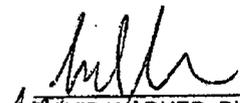
### CONDITIONS

1. 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. 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. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]
4. 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]
5. 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 the VOC destruction device listed on permit S-8282-123. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

  
\_\_\_\_\_  
DAVID WARNER, Director of Permit Services  
S-8282-113-1, Jul 23 2013 11:38AM - DAVIDSOS - Joint Inspection NOT Required

6. 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
7. 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. 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
16. 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
17. 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
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. 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
21. 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
22. 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
23. 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
24. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
25. 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
26. 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-8282-122-0

ISSUANCE DATE: 11/27/2012

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:  
PORTABLE 500 BARREL 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 (REISSUE OF ATC S-1216-188-0)

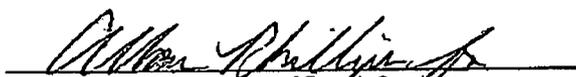
### CONDITIONS

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. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]
3. 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]
4. 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
5. 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. 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
6. 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

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

  
DAVID WARNER, Director of Permit Services

S-8282-122-0 : Apr 10 2013 9:49AM - LEONARDS : Joint Inspection NOT Required

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

7. 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. 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
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. 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
21. 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
22. 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
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. 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



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-8282-123-0

**ISSUANCE DATE:** 07/23/2013

**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:**

TANK VAPOR CONTROL SYSTEM INCLUDING UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES SERVING TANKS S-8282-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121 AND SUBJECT TEST WELL(S)

### CONDITIONS

1. 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. 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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. Total heat input of these units shall not exceed 54,750 MMBtu/yr [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-8282-123-0 - Jul 23 2013 11:38AM - DAVIDSON - Joint Inspection NOT Required

7. 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
8. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 4723 lb, 2nd quarter - 4723 lb, 3rd quarter - 4723 lb, and fourth quarter - 4723 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
10. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 1930 lb, 2nd quarter - 1930 lb, 3rd quarter - 1930 lb, and fourth quarter - 1930 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
11. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 821 lb, 2nd quarter - 821 lb, 3rd quarter - 821 lb, and fourth quarter - 821 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
12. ERC Certificate Numbers S-2669-4, N-783-2, N-1047-1, and N-1088-5 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
13. 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

**ATTACHMENT B**

**BACT Guideline 1.3.1**  
**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
CO	Steam-assisted or air-assisted when steam unavailable		
NOx	Steam-assisted or air-assisted when steam unavailable		
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		
SOx	Pilot Light Fired Solely on LPG or Natural Gas		
VOC	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<sub>x</sub> 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<sub>x</sub> emissions from this operation is the VDD; therefore BACT for NO<sub>x</sub> emissions is satisfied.

**3. BACT Analysis for PM<sub>10</sub> 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 PM<sub>10</sub> emissions from operation is the VDD; therefore BACT for PM<sub>10</sub> 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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, 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: Kyle Melching – Technical Services  
 Date: September 5, 2013  
 Facility Name: Vintage Production CA  
 Location: Various Unspecified LOWSS  
 Application #(s): S-8282-135-0 & 136-0  
 Project #: S-1133536

### A. RMR SUMMARY

RMR Summary			
Categories	Waste Gas Flares (Units 135-0 & 136-0)	Project Totals	Facility Totals
Prioritization Score	0.075	0.15	>1.0
Acute Hazard Index	0.00	0.00	0.02
Chronic Hazard Index	0.00	0.00	0.01
Maximum Individual Cancer Risk (10 <sup>-6</sup> )	4.44E-08	8.88E-08	5.45E-06
T-BACT Required?	No		
Special Permit Conditions?	Yes		

### 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 135-0 & 136-0

1. 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]
2. The flare must operate at least 1,000 feet from the property boundary.

## B. RMR REPORT

### I. Project Description

Technical Services received a request on September 4, 2013, to perform an Ambient Air Quality Analysis and a Risk Management Review for the installation of two VOC destruction devices (flares) for use at various locations within the light oil western stationary source.

### II. Analysis

Toxic emissions were calculated using a District approved spreadsheet Digester Gas-Flare San Diego was input into the HEARTs database In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors 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:

Parameters			
136-0 (Each)			
Source Type	Point	Location Type	Rural
Stack Height (m)	12.2	Closest Receptor (m)	305
Stack Diameter. (m)	1.83	Type of Receptor	Residential/ Business
Stack Exit Velocity (m/s)	2.13	Max Hours per Year	8760
Stack Exit Temp. (°K)	1477	Fuel Type	Waste gas

Technical Services performed modeling for criteria pollutants CO, NOx, SOx and PM<sub>10</sub>; as well as a RMR. For each unit the emission rates used for criteria pollutant modeling were 0.32 lb/hr and 2190 lb/yr CO, 0.92 lb/hr and 6270 lb/yr NOx, 0.06 lb/hr and 384 lb/yr SOx, and 0.32 lb/hr and 2190 lb/yr PM<sub>10</sub>.

The results from the Criteria Pollutant Modeling are as follows:

## Criteria Pollutant Modeling Results\*

Units 135-0 & 136-0	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO <sub>x</sub>	Pass <sup>1</sup>	X	X	X	Pass
SO <sub>x</sub>	Pass	Pass	X	Pass	Pass
PM <sub>10</sub>	X	X	X	Pass <sup>2</sup>	Pass <sup>2</sup>
PM <sub>2.5</sub>	X	X	X	Pass <sup>2</sup>	Pass <sup>2</sup>

\*Results were taken from the attached PSD spreadsheet.

<sup>1</sup>The project was compared to the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.

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

### III. Conclusion

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

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with the project is **8.88E-08**; which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, each unit is approved **without** Toxic Best Available Control Technology (T-BACT).

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

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

### IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Stack Parameter Worksheet
- D. Prioritization score w/ toxic emissions summary
- E. HARP Risk Report
- F. Facility Summary
- G. AAQA Summary
- H. AERMOD NON-Regulatory Option Checklist

## **ATTACHMENT D**

### **VDD Manufacture's Information**



"Combustion Experts"

Coyote North Ltd  
7609 Saxony Road  
Grande Prairie, Alberta, Canada, T8X 0G4  
Phone: (780) 831-6822  
Fax: (780) 832-0928  
Website: [www.coyotenorth.ca](http://www.coyotenorth.ca)

August 21, 2013

**Vintage Production California LLC**  
9600 Ming Avenue, Suite 300  
Bakersfield, California, 93311  
Attention: Ryan Oakes

Dear Ryan:

**Re: Vintage Production – Coyote North Incinerator Quote: 20130821-158**

Coyote North Ltd. is pleased to provide the following Quotation for two - Coyote North CNTOX6 Incinerators to **Vintage Production California LLC** in response to your Request for Quotation for Incinerator Unit(s)

Also, please see ATTACHMENT A for the Incinerators' Specifications, ATTACHMENT B for the Incinerators' Pricing, and ATTACHMENT C for the Incinerators' P&ID Drawing.

The two - Coyote North Ltd. CNTOX6 Incinerators that have been designed and selected for this application allow for the vent gases to be combusted with 99.9%+ destruction efficiency, with low NOx (0.023 lbs / MMbtu), with low CO (0.008 lbs / MMbtu), at a reasonable price. With all air intakes and burner openings flame arrested, the Coyote North CNTOX6 Incinerators are considered enclosed burners and can be located near other facility equipment. Since Coyote North originally started as a combustion service company, our units have also been designed to have the easiest maintenance.

Coyote North Incinerators are manufactured in an ASME certified manufacturing facility in the USA.

Please contact Brent Willey (780 831-6822) or me at the contact information below if you have any questions or comments.

Regards,  
Greg Harasym, P.Eng.  
Engineering Manager  
Coyote North Ltd.  
(403) 869-4908

**Coyote North Ltd. / 2 x CNTOX 6 Incinerator Quotation**  
**Quotation Number: 20130821-158 (Vintage Production – BV Nose Project)**

**1. Coyote North Ltd. CNTOX6 Incinerator Input Assumptions**

Coyote North Ltd. has based our quotation on information provided to us by Vintage Production California LLC as follows:

- Vent Gas Heating Value: 1538 Btu per cubic foot
- Vent Gas Flow Rate: 1,000,000 scf per day
- Connection at the External Manifold Inlet: 6", 150#
- Vent Gas Composition:

Air	N2O2	Mol frac.
Water	H2O	
Hydrogen	H2	
Helium	HE	
Nitrogen	N2	0.006000
carbon dioxide	CO2	0.032200
hydrogen sulfide	H2S	
Methane	C1	0.696400
Ethane	C2	0.088600
Propane	C3	0.092300
n-butane	nC4	0.036800
iso-butane	iC4	0.014300
n-pentane	nC5	0.008300
iso-pentane	iC5	0.009500
Hexane +	C6+	0.015600
n-heptane+	C7+	
	<b>TOTAL</b>	<b>1.0000</b>

Due to the potential for composition variability of the process gas to the facility over time as the producing field matures, the Coyote North Ltd. CNTOX6 Incinerators will be built for sour service.

In order to be in closer proximity to the other equipment at the facility, Coyote North Ltd. provides flame arrestors in the air intakes and flash arrested burner housings that make this unit an enclosed burner system.

## 2. Coyote North Incinerator Selected

Based on the inputs provided by Vintage Production and the resulting vent gas combustion conditions derived by Coyote North Ltd., Coyote North Ltd. has designed and specified **two** of our **CNTOX6 Incinerators**; each being a six foot diameter, 40 foot tall Incinerator. Please see Attachment A for the Units' Specification, Attachment B for the Units' Pricing, and ATTACHMENT C for the Coyote North CNTOX6 Incinerators' P&ID Drawing.

The proposed Coyote North Ltd. CNTOX6 Incinerators configuration will provide the correct balance of vent gas combustion retention time, high combustion temperature, and air-fuel mixing necessary for Coyote North's high efficiency combustion while minimizing fuel gas consumption, eliminating visible flame, eliminating odor, eliminating smoke, and keeping NOx and CO emissions within stated amounts.

## 3. Coyote North Incinerator Requirements

- A. This Coyote North quotation assumes that the following utility input streams shall be piped up to the Coyote North Ltd. Incinerator as follows:
  - i. **Vent Gas** to be supplied through a 6 inch diameter, 150 pound pipe,
  - ii. **Vent Gas**, to be supplied at 35 psig pressure,
  - iii. **Instrument Air**, to be supplied at 100 - 150 psig pressure
  - iv. **Electric Power**, to be supplied at 24 VDC. If no onsite power is available, solar power can be supplied by Coyote North at an additional cost.
- B. Coyote North Ltd. CNTOX6 Incinerators are designed to handle gases, not free liquids in the vent gas stream. A knock-out tank should be installed in the vent gas stream, prior to the CNTOX6 Incinerator. This knock out tank would remove the free liquids, prior to the Incinerator inlet.
- C. The Coyote North Ltd. CNTOX6 Incinerators shall be installed on ground surface and/or foundation that has been suitably designed by others to support the weight of the incinerator units and to support their wind/seismic loading.

## 4. Coyote North Ltd. CNTOX6 Incinerator Features:

- **Coyote North's Multifarious Burner System.** Coyote North Ltd. Incinerators use a dual air intake process for combustion. Air is mixed concentrically with the fuel at the burner tip and air is also naturally drafted through the bottom air intakes. Coyote North Ltd.'s Multifarious Burner System allows for an adjustable mixing ratio between primary and secondary air at the burner nozzle. This creates the optimum flame and the highest

destruction efficiency at over 99.9%. Since we have natural air induction, no blowers or fans are required.

- **Regulatory Compliance.** High destruction efficiency allows for US Bureau of Land Management Compliance, US EPA Emissions Compliance, and lower Greenhouse Gas (GHG) emissions. The Coyote North Burner Management and Stack Top Temperature Controller are NFPA compliant and CSA B.149.3 compliant.
- **Low Visibility.** Coyote North Incinerators produce no visible flame, smoke, or odor. The stack height is minimized. This low visibility allows for easier relations with neighboring land owners.
- **Ease of Installation.** Air Intakes, burners, and burner management control systems all are mounted on a separate rack at the factory. Everything is function tested prior to shipment. This reduces labor onsite and assures proper operation at start-up. The resulting smaller footprint allows for smaller sites and greater portability from site to site.
- **Ease of Operation:**
  - Self-monitoring pilot and burner ignition system,
  - Flame-fail technology alerts site staff and control devices,
  - Continuous stack top temperature monitoring and automated control allows for regulatory compliance.
- **Ease of Maintenance.** Coyote North began business servicing combustion equipment. Our mission is to design serviceable equipment, that is simple to maintain and reliable.
- **Ease of Measurement.** Multiple, threaded Temperature and Sampling Ports are available.
- **Superior Refractory.** Coyote North uses a light-weight, ceramic fibre module refractory which improves efficiency by minimizing heat loss. The ceramic fibre modules have excellent thermal shock capabilities. As modules, they are easy to replace, if necessary.
- **Electronic Ignition.** Provides safe lighting of pilot and ongoing proof of ignition.
- **Emergency Shutdown.** Whether local or through facility control, Coyote North Incinerators can shut-down safely in less than one second.
- **Ground Mounted.** This allows for safer, easier, and quicker maintenance.
- **Safety.** Coyote North Ltd. builds our equipment to be functional, durable, and safe. We have an excellent safety record. Coyote North Ltd. has developed an extensive safety program that demonstrates our commitment to safety. Coyote North Ltd. is ISN Net World and Comply Works compliant.
- **Service.** Fully trained Coyote North Support Technicians are always available.
- **Efficient Combustion with Low Pressure Vent Gases.** Coyote North's Multifarious Burners allow for efficient vent gas combustion from low pressure sources, such as still column emissions from dehydrator reboilers or vapors from tanks. Coyote North burner manifolds do not cause noticeable back pressure to the process.

## 5. About Coyote North Ltd.

Coyote North Ltd. is a Combustion Technology and Service Provider based in Grande Prairie, Alberta, Canada with ASME Certified manufacturing in the USA. Since 2010, we have specialized in combustion equipment design, construction, commissioning, maintenance, and service. Our employees bring their variety of experiences with them. Combined, we have completed over 200 Incinerator Projects for the oil & gas industry. We have representatives in North America, Asia, Europe, and Africa.

Coyote North Ltd. began as a service and maintenance company. When we design and build our units, we make sure that they operate properly, are easy to service, and require little maintenance. Once assembly is completed at the shop, Coyote North performs a complete function test. This ensures that the unit you receive is ready to operate with minimal time and labor required onsite for installation and commissioning.

Coyote North Ltd. has developed an extensive safety program that demonstrates our commitment to safety. Coyote North Ltd. is ISN Net World and Comply Works compliant.

Coyote North Ltd. works with industry leading technology suppliers and manufacturers. This makes our systems safer, more reliable, more serviceable, easier to operate, cleaner, and more efficient. This allows our customers to reduce their overall operating expenses.

Brent Willey, Owner and President, has made Coyote North Ltd.'s goal to complete projects on time, within budget, and meet or exceed our customers' requirements. This philosophy has provided us with many repeat customers.

If you have any questions or comments regarding this proposal, please contact us at:

Brent Willey  
President  
Coyote North Ltd.  
Phone: (780) 831-6822  
Fax: (780) 832-0928  
[brent.willey@coyotenorth.ca](mailto:brent.willey@coyotenorth.ca)

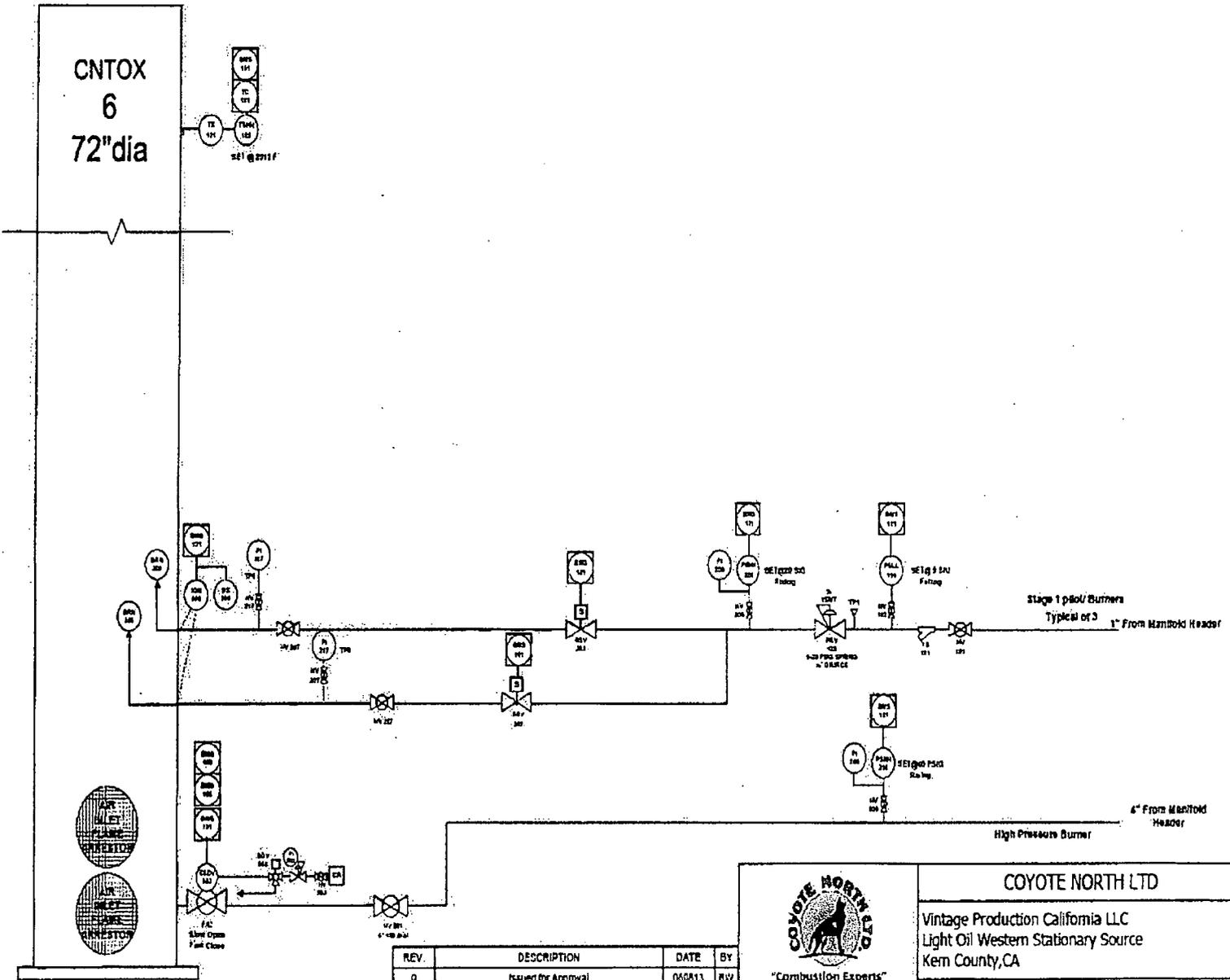
Greg Harasym  
Engineering Manager  
Coyote North Ltd.  
Phone: (403) 869-4908  
Fax: (403) 500-9175  
[greg.harasym@coyotenorth.ca](mailto:greg.harasym@coyotenorth.ca)

## **ATTACHMENT A - Product Specifications (continued)**

### **Coyote North Ltd. CNTOX6 Incinerator System Specifications:**

- 6 feet outside diameter
- 40 feet tall total height
- Ground Mounted, with 80 inch diameter base mounting flange
- 25,000 pounds overall weight
- 10 feet tall air intake / burner section
- Adjustable natural draft air intakes, complete with manual air flow doors and flame arrestors
- Ceramic Fibre Module Refractory, lightweight / excellent thermal shock properties
- 3 x ACL Manufacturing, ACL BMS - NFPA & CSA approved burner management system, complete with stack top temperature measurement, ionization flame fail detection, alarm outputs, and ESD contacts for remote shut-down
- 6 x Stage 1 - Venturi Gas Burners, complete with flash arrested housings
- 2 x 4" Internal Stainless Steel vent gas manifold
- Sight glass
- Man Door for maintenance access
- Emergency shutdown in less than one second
- ESD can be tied into the facility's controls
- SSPC – SP10 sand-blasted and painted with high temperature paint system
- Lifting lugs on air intake section and stack sections
- Stack Top temperature and sampling ports
- Stack Top thermocouple probes and thermowells
- Caged Ladder for stack top access
- Datalogger for stack top temperature, flow meter, and calculated heat value

**ATTACHMENT C - Coyote North Ltd. CNTOX6 Incinerator P&ID Drawing**



Coyote North CNTOX6 Incinerator (x 2) Quotation Number: 20130821-158 / Vintage Production California - BV Nose Project

REV.	DESCRIPTION	DATE	BY
0	Issued for Approval	080813	BVW

 <b>COYOTE NORTH LTD</b> "Combustion Experts"	<b>COYOTE NORTH LTD</b>		
	Vintage Production California LLC Light Oil Western Stationary Source Kem County, CA		
Prepared By: BVW	CNTOX 6 Incinerator P&ID		
Date: August 21 2013	Job No:	Dwg: TOX6 - DEZ1 - 301	Scale: NTS Rev. 0

# ATTACHMENT E

## Green House Gas Calculations

### 62.54 MMBtu VDD

#### Basis and Assumptions:

- The VDDs are fired with a total natural gas at a rate of 80.0 MMBtu/hour (HHV)
- The VDDs operate 8,760 hours per year and is in commercial/institutional service
- Emission factors and global warming potentials (GWP) are taken from the California Climate Change Action Registry (CCAR), Version 3.1, January, 2009 (Appendix C, Tables C.7 and C.8):

CO<sub>2</sub> 53.06 kg/MMBtu (HHV) natural gas (116.7 lb/MMBtu)  
CH<sub>4</sub> 0.005 kg/MMBtu (HHV) natural gas (0.011 lb/MMBtu)  
N<sub>2</sub>O 0.0001 kg/MMBtu (HHV) natural gas (0.00022 lb/MMBtu)  
GWP for CH<sub>4</sub> = 21 lb-CO<sub>2</sub>e per lb-CH<sub>4</sub>  
GWP for N<sub>2</sub>O = 310 lb-CO<sub>2</sub>e per lb-N<sub>2</sub>O

#### Calculations

##### *Hourly Emissions:*

CO<sub>2</sub> Emissions = 80 MMBtu/hr x 116.7 lb/MMBtu = 9336 lb-CO<sub>2</sub>e/hour  
CH<sub>4</sub> Emissions = 80 MMBtu/hr x 0.011 lb/MMBtu x 21 lb-CO<sub>2</sub>e per lb-CH<sub>4</sub> = 18.5 lb-CO<sub>2</sub>e/hour  
N<sub>2</sub>O Emissions = 80 MMBtu/hr x 0.00022 lb/MMBtu x 310 lb-CO<sub>2</sub>e per lb-N<sub>2</sub>O = 5.5 lb-CO<sub>2</sub>e/hour

Total = 9336 + 18.5 + 5.5 = 9360 lb-CO<sub>2</sub>e/hour

##### *Annual Emissions:*

9360 lb-CO<sub>2</sub>e/hour x 8,760 hr/year ÷ 2,000 lb/ton = 40,997 tons-CO<sub>2</sub>e/year

##### *Metric Conversion:*

40,977 short tons-CO<sub>2</sub>e/year x 0.9072 metric tons/short ton = **37,192 metric tons**

**ATTACHMENT F**

**Draft ATC's**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT

PERMIT NO: S-8282-113-2

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 WELL TEST SEPARATOR, 3-PHASE SEPARATOR, AND SERVED BY VAPOR CONTROL SYSTEM CONSISTING OF VAPOR COMPRESSOR, AND PIPING SERVING TANKS 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: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES S-8282-135-0 AND S-8282-136-0

**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. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
4. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]
5. 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

DAVID WARNER, Director of Permit Services

S-8282-113-2 : Oct 7 2013 7:58AM -- DAVIDSDS : Joint Inspection NOT Required

6. 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 the VOC destruction devices listed on permit S-8282-123, S-8282-135, and S-8282-136. [District Rule 4623] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. 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
16. 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
17. 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
18. 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

DRAFT  
CONDITIONS CONTINUE ON NEXT PAGE

19. 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
20. 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
21. 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
22. 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
23. 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
24. 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
25. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
26. 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
27. 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
28. ATCs S-8282-113-1 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
29. ATCs S-8282-135-0 and '-136-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-8282-122-2

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 PORTABLE 500 BARREL 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: AUTHORIZE VAPOR CONTROL SYSTEM TO VENT TO VOC DESTRUCTION DEVICES S-8282-123, 135-0, AND '136-0

**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. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
4. The portable well test operation shall not operate within 1,000 feet of the nearest receptor. [District Rule 4102]
5. 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]
6. 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

DAVID WARNER, Director of Permit Services

S-8282-122-2; Oct 9 2013 7:55AM - DAVIDSOS : Joint Inspection NOT Required

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

7. 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 the VOC destruction devices listed on permit S-8282-123, S-8282-135 and 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
8. 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
9. 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
10. 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
11. 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
12. 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
13. 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
14. 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
15. Gas-leak concentration shall be determined by EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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
17. 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
18. 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
19. 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

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
22. 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
23. 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
24. 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
25. 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
26. 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
27. 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
28. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623] Federally Enforceable Through Title V Permit
29. 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
30. 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
31. ATCs S-8282-122-0 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
32. ATCs S-8282-123-1, 135-0 and '-136-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-8282-123-1

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 TANK VAPOR CONTROL SYSTEM INCLUDING UP TO TWO 40 MMBTU/HR BEKAERT CEB 1200 VAPOR DESTRUCTION DEVICES SERVING TANKS S-8282-122, '-92, '-93, '-94, '-95, '-96, '-97, '-98, '-99, '-113, '-114, '-115, '-116, '-117, '-118, '-119, '-120, '-121 AND SUBJECT TEST WELL(S): AUTHORIZE COMBUSTION OF VAPORS FROM THE CONTROL SYSTEM LISTED ON PERMIT S-8282-122

**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. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
4. Vapor destruction device shall operate at least 1,000 feet of the property boundary. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. 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

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

**DAVID WARNER**, Director of Permit Services

S-8282-123-1 : Oct 7 2013 7:59AM -- DAVIDSOS : Joint Inspection NOT Required

7. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO<sub>x</sub>/MMBtu; 0.014 lb-SO<sub>x</sub>/MMBtu; 0.008 lb-PM<sub>10</sub>/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Total heat input of these units shall not exceed 547,500 MMBtu/yr [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 4723 lb, 2nd quarter - 4723 lb, 3rd quarter - 4723 lb, and fourth quarter - 4723 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
12. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 1930 lb, 2nd quarter - 1930 lb, 3rd quarter - 1930 lb, and fourth quarter - 1930 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
13. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 821 lb, 2nd quarter - 821 lb, 3rd quarter - 821 lb, and fourth quarter - 821 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
14. ERC Certificate Numbers S-2669-4, N-783-2, N-1047-1, and N-1088-5 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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
16. ATCs S-8282-122-0 shall be implemented prior to or concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
17. ATCs S-8282-122-2 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-8282-135-0

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 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT)  
AUTHORIZED TO SERVE THE TANK VAPOR CONTROL SYSTEM LISTED ON S-8282-113, -122, AND SUBJECT TEST  
WELL AT VARIOUS UNSPECIFIED LOCATIONS

**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. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
4. Vapor Destruction Device shall operate at least 1,000 feet of the property boundary. [District Rule 4102]
5. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
6. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

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

S-8282-135-0 : Oct 7 2013 7:59AM - DAVIDSOS : Joint Inspection NOT Required

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

7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. 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
9. The Vapor Destruction Device must operate at least 1,000 feet from the property boundary. [District Rule 2201 and 4120] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. 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
12. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO<sub>x</sub>/MMBtu; 0.014 lb-SO<sub>x</sub>/MMBtu; 0.008 lb-PM<sub>10</sub>/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total heat input of this unit shall not exceed 350,400 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> 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
17. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 184 lb, 2nd quarter - 184 lb, 3rd quarter - 184 lb, and fourth quarter - 184 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
18. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM<sub>10</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 1051 lb, 2nd quarter - 1051 lb, 3rd quarter - 1051 lb, and fourth quarter - 1051 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
19. 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
20. ERC Certificate Numbers N-805-2, N-824-2, S-2865-2, S-3032-2, S-3031-2, S-3139-2, S-2806-2, N-1045-2, C-1139-5, S-2461-4, C-885-4, N-677-4, N-117-4, and N-998-1 (or a certificate split from these certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. . [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. 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
22. ATCs S-8282-113-1 and '-122-2-0 shall be implemented concurrent with this ATC. [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  
**DRAFT**

PERMIT NO: S-8282-136-0

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 40 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX6 VOC DESTRUCTION DEVICE (OR EQUIVALENT)  
AUTHORIZED TO SERVE THE TANK VAPOR CONTROL SYSTEM LISTED ON S-8282-113, '-22, AND SUBJECT TEST  
WELL AT VARIOUS UNSPECIFIED LOCATIONS

**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. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
4. Vapor Destruction Device shall operate at least 1,000 feet of the property boundary. [District Rule 4102]
5. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
6. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APGO

**DAVID WARNER**, Director of Permit Services

S-8282-136-0: Oct 7 2013 7:58AM - DAVIDSOS : Job Inspection NOT Required

7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. 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
9. The Vapor Destruction Device must operate at least 1,000 feet from the property boundary. [District Rule 2201 and 4120] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. 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
12. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO<sub>x</sub>/MMBtu; 0.014 lb-SO<sub>x</sub>/MMBtu; 0.008 lb-PM<sub>10</sub>/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total heat input of this unit shall not exceed 350,400 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> 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
17. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 184 lb, 2nd quarter - 184 lb, 3rd quarter - 184 lb, and fourth quarter - 184 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
18. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM<sub>10</sub> emission reduction credits for the following quantity of emissions: 1st quarter - 1051 lb, 2nd quarter - 1051 lb, 3rd quarter - 1051 lb, and fourth quarter - 1051 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
19. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 539 lb, 2nd quarter - 539 lb, 3rd quarter - 539 lb, and fourth quarter - 539 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
20. ERC Certificate Numbers N-805-2, N-824-2, S-2865-2, S-3032-2, S-3031-2, S-3139-2, S-2806-2, N-1045-2, C-1139-5, S-2461-4, C-885-4, N-677-4, N-117-4, and N-998-1 (or a certificate 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

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CONDITIONS CONTINUE ON NEXT PAGE

21. 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
22. ATCs S-8282-113-1 and S-122-2-0 shall be implemented concurrent with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

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