



DEC 26 2013

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

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1738
Project # S-1133220**

Dear Mr. Frost:

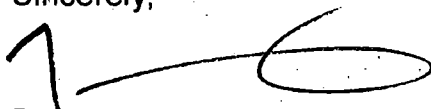
Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to increase the flared gas throughput limit, to revise the sulfur monitoring frequency from once every 12 months to once annually, install sulfur removal vessels, and remove the reference to permit S-1738-422.

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

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

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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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modify Waste Gas Flare

Facility Name:	Vintage Production California, LLC	Date:	December 3, 2013
Mailing Address:	9600 Ming Avenue Bakersfield, CA 93311	Engineer:	Robert Gilles
Contact Person:	Nicholas Diercks, Consultant	Lead Engineer:	Sheraz Gill
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Application #:	S-1738-427-2		Jerry_Frost@oxy.com
Project #:	S-1133220		
Deemed Complete:	August 13, 2013		

I. Proposal

Vintage Production California, LLC (Vintage) is requesting an Authority to Construct (ATC) permit to authorize the modification of permit S-1738-427 to increase the flared gas throughput limit to not exceed 300,000 scf per day. This application was submitted as a result of NOV # 5010952. The facility has also proposed to revise the gas sulfur testing frequency from once every 12 months to annually and to install sulfur removal vessels to lower the H₂S concentration of the waste gas prior to combustion. The permit equipment description will also be revised to remove the reference to permit S-1738-422 since that permit has been deleted.

Vintage received their Title V Permit on 1/13/00. This modification can be classified as a Title V significant permit modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Vintage must apply to administratively amend their Title V permit.

Current PTO S-1738-427-1 serves as the base document and is included in Appendix B.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)

Rule 4311 Flares (6/18/09)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA
Guidelines

III. Project Location

The equipment will be located at the McDonald Anticline Lease, within the NE/4 of Section 18, Township 28S, Range 20E. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The flare is operated in order to incinerate light oil well head vapors. The wellhead gas enters a primary oil/gas trap separator chamber. The oil flows downward and is discharged to a crude oil wash tank. The gas flows upward and is discharged from the trap through a side outlet. The gas is piped through sulfur removal vessels which will lower the waste gas H₂S concentration and then is piped to the gas flare which will be ignited by a waste gas pilot.

V. Equipment Listing

Pre-Project Equipment Description:

S-1738-427-1: 10 MMBTU/HR WASTE GAS FLARE USED TO INCINERATE PRODUCED GAS, AND VAPORS FROM TANK VAPOR CONTROL SYSTEM LISTED ON S-1738-417 (LAYMAN TANK BATTERY) AND S-1738-422 (HONOLULU TANK BATTERY)

Proposed Modification:

Increase the daily flare throughput limit from 235,000 scf per day to 300,000 scf per day, revise the gas sulfur testing frequency from every 12 months to annually, install sulfur removal vessels, and remove reference to permit S-1738-422 since that permit was deleted on 2/1/11.

S-1738-427-2: MODIFICATION OF 10 MMBTU/HR WASTE GAS FLARE USED TO INCINERATE PRODUCED GAS AND VAPORS FROM TANK VAPOR CONTROL SYSTEM LISTED ON S-1738-417 (LAYMAN TANK BATTERY) AND S-1738-422 (HONOLULU TANK BATTERY): INCREASE THE FLARE GAS THROUGHPUT FROM 235,000 SCF PER DAY TO 300,000 SCF PER DAY; REVISE THE GAS SULFUR TESTING FREQUENCY FROM EVERY 12 MONTHS TO ANNUALLY; INSTALL SULFUR REMOVAL VESSELS; AND, REMOVE REFERENCE TO PERMIT UNIT S-1738-422

Post-Project Equipment Description:

S-1738-427-2: 10 MMBTU/HR WASTE GAS FLARE WITH SULFUR REMOVAL VESSELS USED TO INCINERATE PRODUCED GAS, AND VAPORS FROM TANK VAPOR CONTROL SYSTEM LISTED ON S-1738-417 (LAYMAN TANK BATTERY)

VI. Emission Control Technology Evaluation

The flare in this project is an emissions control device. It does not have any add-on control equipment to further mitigate emissions. The flare is an air-assisted flare, which will help reduce all criteria pollutant emissions compared to a non-air-assisted flare. Sulfur oxide emissions will be reduced through use of the pre-combustion sulfur removal vessels which will reduce the waste gas H₂S concentration.

VII. General Calculations

A. Assumptions

- Pre-project daily flared gas throughput: 235,000 scf/day (current PTO);
- Post-project daily flared gas throughput: 300,000 scf/day (proposed);
- Higher heating value (HHV) of the well casing gas: 1,100 Btu/scf (gas sample);
- Pre and post-project SO_x emissions limit: 112.3 lb/day (current PTO); and
- Maximum operation is 24 hr/day and 365 day/year.

B. Emission Factors

The applicant has proposed no changes to the NO_x, PM₁₀, VOC, or CO emissions factors for the unit in this project; therefore, the pre and post-project emission factors, as shown in the table below, will be the same.

Emission Factors (EF)			
Pollutant	EF (lb/MMscf)	EF (lb/MMBtu)	Source
NO _x	---	0.068 lb/MMBtu	Current PTO S-1738-427-1
PM ₁₀	7.6 lb/MMscf	0.0069 lb/MMBtu	Current PTO S-1738-427-1
CO	---	0.370 lb/MMBtu	Current PTO S-1738-427-1
VOC	---	0.034 lb/MMBtu	Current PTO S-1738-427-1

The pre and post-project SO_x emission factors can be calculated using the permitted SO_x emissions limit and the permitted pre project gas throughput and proposed post project gas throughput limit as follows:

$$EF1 = 112.3 \text{ lb-SO}_x/\text{day} \div (235,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \div 1E6 \text{ Btu/MMBtu})$$

$$= \mathbf{0.434 \text{ lb-SO}_x/\text{MMBtu}}$$

$$EF2 = 112.3 \text{ lb-SO}_x/\text{day} \div (300,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \div 1E6 \text{ Btu/MMBtu})$$

$$= \mathbf{0.340 \text{ lb-SO}_x/\text{MMBtu}}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Daily and annual PE1 are calculated using the equations below.

$$\begin{aligned} \text{Daily PE1} &= \text{EF} \times \text{Fuel Limit} \times \text{HHV} \\ \text{Annual PE1} &= \text{EF} \times \text{Fuel Limit} \times \text{HHV} \times 365 \text{ day/yr} \end{aligned}$$

Pre-Project Potential to Emit (PE1)			
Pollutant	EF (lb/MMBtu)	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NOx	0.068	17.6	6,416
SOx	---	112.3	40,990
PM ₁₀	0.0069	1.8	651
CO	0.370	95.6	34,910
VOC	0.034	8.8	3,208

2. Post Project Potential to Emit (PE2)

Daily and annual PE2 are calculated using the equations below.

$$\begin{aligned} \text{Daily PE2} &= \text{EF} \times \text{Fuel Limit} \times \text{HHV} \\ \text{Annual PE2} &= \text{EF} \times \text{Fuel Limit} \times \text{HHV} \times 365 \text{ day/yr} \end{aligned}$$

Post-Project Potential to Emit (PE2)			
Pollutant	EF (lb/MMBtu)	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NOx	0.068	22.4	8,191
SOx	---	112.3	40,990
PM ₁₀	0.0069	2.3	831
CO	0.370	122.1	44,567
VOC	0.034	11.2	4,095

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 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 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 pollutants and will remain a Major Source for all pollutants.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO _{2e}
Estimated Facility PE before Project Increase	---	---	---	---	---	---	>100,000
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source? (Y/N)							Y

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

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,

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

otherwise,

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

a. BE NO_x

Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is an air-assisted flare, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

$$\begin{aligned} \text{BE} = \text{PE1} &= 0.068 \text{ lb/MMBtu} \times 235,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \times 1 \text{ MMBtu}/1\text{E6} \\ &\quad \text{Btu} \times 365 \text{ day/yr} \\ &= 6,416 \text{ lb-NO}_x/\text{yr} \end{aligned}$$

b. BE SO_x

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is an air-assisted flare, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

$$\begin{aligned} \text{BE} = \text{PE1} &= 112.3 \text{ lb-SO}_2/\text{day} \times 365 \text{ day/year} \\ &= 44,990 \text{ lb-SO}_x/\text{year} \end{aligned}$$

c. BE PM₁₀

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is an air-assisted flare, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

$$\begin{aligned} \text{BE} = \text{PE1} &= 0.0069 \text{ lb/MMBtu} \times 235,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \times 1 \text{ MMBtu}/1\text{E6} \\ &\text{Btu} \times 365 \text{ day/yr} \\ &= 651 \text{ lb-PM}_{10}\text{/yr} \end{aligned}$$

d. BE CO

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is an air-assisted flare, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

$$\begin{aligned} \text{BE} = \text{PE1} &= 0.370 \text{ lb/MMBtu} \times 235,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \times 1 \text{ MMBtu}/1\text{E6} \\ &\text{Btu} \times 365 \text{ day/yr} \\ &= 34,910 \text{ lb-CO/yr} \end{aligned}$$

e. BE VOC

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is an air-assisted flare, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

$$\begin{aligned} \text{BE} = \text{PE1} &= 0.034 \text{ lb/MMBtu} \times 235,000 \text{ scf/day} \times 1,100 \text{ Btu/scf} \times 1 \text{ MMBtu}/1\text{E6} \\ &\text{Btu} \times 365 \text{ day/yr} \\ &= 3,208 \text{ lb-VOC/yr} \end{aligned}$$

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?
NOx	8,191	50,000	No
SOx	40,990	80,000	No
PM ₁₀	831	30,000	No
VOC	4,095	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.

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not federal major modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significance Thresholds (lb/year)	
Pollutant	Threshold (lb/year)
VOC	0
NOx	0
PM ₁₀	30,000
SOx	80,000

The Net Emissions Increases (NEI) for purposes of determination of a "Less-Than-Significant Emissions Increase" exclusion will be calculated below to determine if this project qualifies for such an exclusion.

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

If the proposed modification results in an increase in design capacity or potential to emit, or impacts the ability of the emission unit to operate at a higher utilization rate, then the emission increase is calculated as follows:

$$\text{Net Emission Increase (NEI)} = \text{PAE} - \text{BAE}$$

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

Projected Actual Emissions

For the flare in this project, the projected actual emissions are assumed to be equal to the post-project potential to emit (PE2).

Flare Projected Actual Emissions (PAE)		
Pollutant	Emissions (lb/year)	Emissions (ton/year)
VOC	4,095	2.05
NOx	8,191	4.10
PM ₁₀	831	0.42
SOx	40,990	20.50

Baseline Actual Emissions

The actual emissions are calculated using historical actual fuel usage for this flare, provided by the applicant for the 24 month period from 8/1/2011 through 7/31/2013. The data provided by the applicant has been adjusted to exclude non-compliant operation emissions. The annual fuel usage is summarized in the table below and the data are included in Appendix F.

Actual Flare Fuel Usage 8/1/2011 through 7/31/2013			
Permit Unit	8/1/2011 – 7/31/2012 (scf/year)	8/1/2012 – 7/31/2013 (scf/year)	Average Fuel Usage (scf/year)
S-1738-427	44,468,000	37,845,000	41,156,500

Actual emissions are calculated using the following equation and are summarized in the table below.

$$\text{BAE (Flare)} = \text{Fuel Use (MMscf/year)} \times \text{Emission Factor (lb/MMBtu)} \times \text{Heating Value (Btu/scf)}$$

SOx emissions are calculated from the H₂S concentration of the gas. H₂S concentration was provided by the applicant from the gas analysis dated 8/12/2013 (see Appendix G). The SOx emission factor can be calculated as follows.

H₂S Concentration = 2,900 ppmv (gas analysis conducted on 8/12/13)

$$\begin{aligned} \text{EF SO}_2 &= (2,900 \text{ scf H}_2\text{S/MMscf gas}) \times (\text{lb-mol H}_2\text{S}/379.5 \text{ scf H}_2\text{S}) \times (64 \text{ lb-SO}_2/\text{lb-mol H}_2\text{S}) \\ &= 489.1 \text{ lb-SO}_2/\text{MMscf gas} \div 1,100 \text{ MMBtu/MMscf} \\ &= 0.445 \text{ lb-SO}_2/\text{MMBtu} \end{aligned}$$

Flare Annual Actual Emissions (BAE)					
Pollutant	Fuel Usage (MMscf/year)	Emission Factor (lb/MMBtu)	Heating Value (Btu/scf)	Emissions (lb/year)	Emissions (tons/year)
VOC	41.16	0.034	1,100	1,539	0.77
NOx	41.16	0.068	1,100	3,079	1.54
PM ₁₀	41.16	0.0069	1,100	312	0.16
SOx	41.16	0.445	1,100	20,148	10.07

Net Emissions Increase

Net Emissions Increase (NEI) is calculated as NEI = PAE – BAE.

Net Emissions Increase (NEI)			
Pollutant	PAE (lb/year)	BAE (lb/year)	NEI (lb/year)
VOC	4,095	1,539	2,556
NOx	8,191	3,079	5,112
PM ₁₀	831	312	519
SOx	40,990	26,486	14,504

Since there is an increase in NO_x and VOC emissions, this project constitutes a Federal Major Modification for NO_x and VOC, however, this project is not a Federal Major Modification for SO_x and PM₁₀. No further analysis is required.

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

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).

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.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is a new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result 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)						
	NO ₂	SO ₂	CO	PM	PM ₁₀	CO ₂ e
Total PE from New and Modified Units	4.10	20.50	22.28	0.42	0.42	7,047
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	N	N	N	N	N	N

GHG Calculation – S-1738-427

Basis and Assumptions

For the purposes of estimating GHG emissions for the flare in this project, the emissions factors for natural will be used.

- Fuel Type: Natural gas
- Emission factors (EF) and global warming potentials (GWP) are taken from EPA 40 CFR Part 98, Subpart A, Tables C-1 and C-2:

Natural Gas

- EF for CO₂: 53.02 kg/MMBtu (116.89 lb/MMBtu)
- EF for CH₄: 1.0 x 10⁻³ kg/MMBtu (0.0022 lb/MMBtu)
- EF for N₂O: 1.0 x 10⁻⁴ kg/MMBtu (0.00022 lb/MMBtu)

- GWP for CH₄: 21 lb-CO₂(eq) per lb-CH₄
- GWP for N₂O: 310 lb-CO₂(eq) per lb-N₂O

Calculations

$$\begin{aligned} \text{Annual Heat Input} &= 300,000 \text{ scf/day} \times 365 \text{ day/yr} \times 1,100 \text{ Btu/scf} \div 1\text{E}6 \\ &\text{Btu/MMBtu} \\ &120,450 \text{ MMBtu/yr (maximum)} \end{aligned}$$

$$\begin{aligned} \text{CO}_2 \text{ Emissions} &= 120,450 \text{ MMBtu/hr} \times 116.89 \text{ lb/MMBtu} \\ &= 14,079,400.5 \text{ lb-CO}_2(\text{eq})/\text{year} \end{aligned}$$

$$\begin{aligned} \text{CH}_4 \text{ Emissions} &= 120,450 \text{ MMBtu/hr} \times 0.0022 \text{ lb/MMBtu} \times 21 \text{ lb-CO}_2(\text{eq}) \\ &\text{per lb-CH}_4 \\ &= 5,564.8 \text{ lb-CO}_2(\text{eq})/\text{year} \end{aligned}$$

$$\begin{aligned} \text{N}_2\text{O Emissions} &= 120,450 \text{ MMBtu/hr} \times 0.00022 \text{ lb/MMBtu} \times 310 \text{ lb-} \\ &\text{CO}_2(\text{eq}) \text{ per lb-N}_2\text{O} \\ &= 8,214.7 \text{ lb-CO}_2(\text{eq})/\text{year} \end{aligned}$$

$$\begin{aligned} \text{Total CO}_2\text{e Emissions} &= (14,079,400.5 + 5,564.8 + 8,214.7) \text{ lb-CO}_2(\text{eq})/\text{year} \\ &= 14,093,180 \text{ lb-CO}_2(\text{eq})/\text{year} \div 2,000 \text{ lb/ton} \\ &= 7,047 \text{ ton-CO}_2\text{e/yr} \end{aligned}$$

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 QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix J.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions¹:

- 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.

a. New emissions units – PE > 2.0 lb/day

As discussed in Section I above, there are no new emissions units associated with this project; therefore, BACT for new units with PE > 2.0 lb/day purposes is not triggered.

b. Relocation of emissions units – PE > 2.0 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore, BACT for relocated units with PE > 2.0 lb/day purposes is not triggered.

¹ 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.

c. Modification of emissions units – AIPE > 2.0 lb/day

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

Where,

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

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

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

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

Where,

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

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

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

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

NO_x

$$\begin{aligned}\text{AIPE} &= 22.4 - (17.6 \times (0.068 \div 0.068)) \\ &= 22.4 - (17.6 \times 1) \\ &= 4.8 \text{ lb/day}\end{aligned}$$

SO_x

$$\begin{aligned}\text{AIPE} &= 112.3 - (112.3 \times (0.340 \div 0.434)) \\ &= 112.3 - (112.3 \times 0.783) \\ &= 112.3 - 88.0 \\ &= 24.3 \text{ lb/day}\end{aligned}$$

PM₁₀

$$\begin{aligned}\text{AIPE} &= 2.3 - (1.8 \times (0.0069 \div 0.0069)) \\ &= 2.3 - (1.8 \times 1) \\ &= 0.5 \text{ lb/day}\end{aligned}$$

CO

$$\begin{aligned}\text{AIPE} &= 122.1 - (95.6 \times (0.370 \div 0.370)) \\ &= 122.1 - (95.6 \times 1) \\ &= 26.5 \text{ lb/day}\end{aligned}$$

VOC

$$\begin{aligned}\text{AIPE} &= 11.2 - (8.8 \times (0.034 \div 0.034)) \\ &= 11.2 - (8.8 \times 1) \\ &= 2.4 \text{ lb/day}\end{aligned}$$

As demonstrated above, the AIPE is greater than 2.0 lb/day for NO_x, SO_x, CO, and VOC emissions and is not greater than 2.0 lb/day PM₁₀ emissions; therefore, BACT is triggered for NO_x, SO_x, CO, and VOC for AIPE > 2.0 lb/day purposes. BACT is not triggered for PM₁₀.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute a Federal Major Modification for NO_x and VOC emissions; therefore, BACT for SB 288/Federal Major Modification purposes is triggered.

2. BACT Guideline

BACT Guideline 1.4.2, applies to Waste Gas Flares – Incinerating Produced Gas (see Appendix C).

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see Appendix D), BACT has been satisfied with the following:

- NO_x: Air-assisted burner
- SO_x: Pre-combustion SO_x scrubbing system
- CO: Air-assisted burner
- VOC: Air-assisted burner

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE2	>20,000	>54,750	>29,200	>200,000	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Calculation Triggered?	Yes	Yes	Yes	Yes	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for all criteria pollutants and the SSPE2 is greater than the offset thresholds; therefore, offset calculations will be required for this project.

Pursuant to District Rule 2201, Section 4.6.1, emission offsets shall not be required for increases in carbon monoxide in attainment areas if the applicant demonstrates 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. This project will not cause or contribute to a violation of Ambient Air Quality Standards as summarized in the modeling summary in Appendix E. Since all requirements of this exemption are met, emission offsets shall not be required for CO for this project.

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

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

As calculated in Section VII.C.6 above, the BE from this unit are equal to the PE1 since the unit is a Clean Emissions Unit for all pollutants.

Also, there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions. Therefore, offsets can be determined as follows:

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

NO_x
PE2 = 8,191 lb/year
BE = 6,416 lb/year
ICCE = 0 lb/year

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([8,191 - 6,416] + 0) \\ &= 1,775 \text{ lb-NO}_x\text{/year} \div 4 \text{ qtr/yr} \\ &= 443.75 \text{ lb-NO}_x\text{/qtr} \end{aligned}$$

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

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
443	444	444	444

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

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([8,191 - 6,416] + 0) \times 1.5 \\ &= 2,663 \text{ lb-NO}_x\text{/year} \div 4 \text{ qtr/yr} \\ &= 665.75 \text{ lb-NO}_x\text{/qtr} \end{aligned}$$

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
665	666	666	666

The applicant has stated that the facility plans to use ERC certificates N-945-2, N-1090-2, S-4084-2, and S-0826-2 to offset the increases in NO_x emissions associated with this project. The identified certificates have available quarterly NO_x credits as follows:

	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
ERC # N-945-2	2,384	0	0	0
ERC # N-1090-2	157	0	0	0
ERC # S-4084-2	0	269	0	1,422
ERC # S-826-2	6,684	6,259	5,625	6,369
Total	9,225	6,528	5,625	7,791

As seen above, the facility has sufficient credits to fully offset the quarterly NO_x emissions increases associated with this project.

SO_x
PE2 = 40,990 lb/year
BE = 40,990 lb/year
ICCE = 0 lb/year

Required offsets for SO_x will be calculated assuming an offset ratio of 1.5:1.

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([40,990 - 40,990] + 0) \times 1.0 \\ &= 0 \text{ lb-SO}_x\text{/year} \div 4 \text{ qtr/yr} \\ &= 0 \text{ lb-SO}_x\text{/qtr} \end{aligned}$$

PM₁₀
PE2 = 831 lb/year
BE = 651 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = $([831 - 651] + 0)$
= 180 lb-PM₁₀/year ÷ 4 qtr/yr
= 45 lb-PM₁₀/qtr

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

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
45	45	45	45

The original location of the proposed PM₁₀ emissions reductions was greater than 15 miles from the location of the modified flare in this project; therefore, the correct offset ratio for PM₁₀ is 1.5:1.

Offsets Required (lb/year) = $([831 - 651] + 0) \times 1.5$
= 270 lb-PM₁₀/year ÷ 4 qtr/yr
= 67.5 lb-PM₁₀/qtr

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
67	67	68	68

The applicant has stated that the facility plans to use ERC certificate N-949-5 to offset the increases in PM₁₀ emissions associated with this project. PM₁₀ may be offset using SO_x at an inter-pollutant offset ratio of 1.0 ton-SO_x/ton-PM₁₀ pursuant to District Draft Policy APR 1430. The above certificate has available quarterly SO_x credits as follows:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC # N-949-5	851	851	849	849

As seen above, the facility has sufficient credits to fully offset the quarterly PM₁₀ emissions increases associated with this project.

VOC
PE2 = 4,095 lb/year
BE = 3,208 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = $([4,095 - 3,208] + 0)$
= 857 lb-VOC/year ÷ 4 qtr/year
= 214.25 lb-VOC/qtr

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

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
214	214	214	215

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

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([4,095 - 3,208] + 0) \times 1.5 \\ &= 1,331 \text{ lb-VOC/year} \div 4 \text{ qtr/year} \\ &= 332.75 \text{ lb-VOC/qtr} \end{aligned}$$

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
332	333	333	333

The applicant has stated that the facility plans to use ERC certificate S-3578-1 to offset the increases in VOC emissions associated with this project. The above certificate has available quarterly VOC credits as follows:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC # S-3578-1	1,178	4,452	6,003	1,377

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

- Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantities of emissions: 1st quarter - 443 lb, 2nd quarter - 444 lb, 3rd quarter - 444 lb, and fourth quarter - 444 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Y
- ERC Certificate Numbers N-945-2, N-1090-2, S-4084-2, and S-826-2 (or any certificate split from these certificates) shall be used to supply the required NOx 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] Y
- Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantities of emissions: 1st quarter - 45 lb, 2nd quarter - 45 lb, 3rd quarter - 45 lb, and fourth quarter - 45 lb. PM10 may be offset using SOx at an interpollutant offset ratio of 1.0 ton-SOx/ton-PM10. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Y
- ERC Certificate Number N-949-5 (or a certificate split from this certificate) shall be used to supply the required PM10 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] Y

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 214 lb, 2nd quarter - 214 lb, 3rd quarter - 214 lb, and fourth quarter - 215 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Y
- ERC Certificate Number S-3578-1 (or a certificate split from this certificate) shall be used to supply the required VOC 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] Y

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 VII.C.7, this project is a Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. **PE > 100 lb/day**

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore, public noticing is not required for this project for PE > 100 lb/day.

c. **Offset Threshold**

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

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

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

d. SSIPE > 20,000 lb/year

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

For this project, since there are no increases or decreases in facility potential to emit, other than the increases proposed for unit '-427, the SSIPE can be calculated as the project increase in potential to emit (i.e., PE2 – PE1).

SSIPE Public Notice Thresholds					
Pollutant	PE2 (lb/year)	PE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	8,191	6,416	1,775	20,000 lb/year	No
SO _x	40,990	40,990	0	20,000 lb/year	No
PM ₁₀	831	651	180	20,000 lb/year	No
CO	44,567	34,910	9,657	20,000 lb/year	No
VOC	4,095	3,208	887	20,000 lb/year	No

As demonstrated above, the SSIPE for all pollutants is less than 20,000 lb/year; therefore, public noticing for SSIPE > 20,000 lb/year purposes is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for federal major modification purposes. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and the US EPA 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 this flare, the DELs are stated in the form of emission factors, and the maximum amount of allowable waste gas flared per day and year.

Proposed Rule 2201 (DEL) Conditions:

- Emission rates shall not exceed any of the following: NO_x (as NO₂) - 0.068 lb/MMBtu, VOC - 0.034 lb/MMBtu, PM₁₀ - 7.6 lb/MMscf, or CO - 0.370 lb/MMBtu. [District Rule 2201] Y
- SO_x (as SO₂) emission rate shall not exceed 112.3 lb/day. [District Rule 2201] Y
- Total gas flow rate to flare shall not exceed 300,000 scf per day. [District 2201 Rule] Y

E. Compliance Assurance

1. Source Testing

The facility is required to measure the sulfur content (H₂S) of the waste gas flared. With this project, the applicant has proposed to change the testing frequency from once every 12 months to once annually. The following condition will be included on the permit.

- Measurement of gas sulfur content (H₂S) shall be conducted at least once annually. If the result of the annual measurement demonstrates that the unit does not meet the applicable emission limits, the measurement frequency shall revert to once every month until three (3) consecutive measurements show compliance with the applicable emission limits, at which time measurement frequency may revert back to once annually. [District Rule 2201] Y

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:

- Permittee shall maintain records of daily amount of total gas flared, annual records (or monthly records as required by this permit) of sulfur content of gas, and calculated average daily SO₂ emissions. Records shall be kept for a minimum of 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 2201] Y

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis.

As shown by the AAQA summary sheet in Appendix E, the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, PM₁₀ or SO_x.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this project does constitute a Title I modification; therefore, this requirement is applicable. Vintage's compliance certification is included in Appendix I.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to increase the daily flared gas throughput limit. Since the project is for a flare to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore, result in a much greater impact.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project is considered to be a modification under the Federal Clean Air Act. Additionally, changing the frequency of gas sulfur content testing from once every 12 months to once annually can be

considered a relaxation in the testing requirement for this operation. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed above, the facility has applied for a Certificate of Conformity (COC) (see Appendix I); 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. The following conditions will be included on ATC S-1738-427-2.

- {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] Y
- {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] Y

40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

Except for back-up utility units that are exempt under paragraph (b)(2), Section 64.2 states that the requirements of this subpart shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a Part 70 or 71 permit if the unit satisfies all of the following criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, catalytic oxidizers, etc.; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO _x	20,000
CO	200,000
PM ₁₀	140,000
SO _x	140,000

This permit contains emission limits for NO_x, CO, VOC, PM₁₀ and SO_x emissions for the flare. However, the flare is not equipped with any add on control devices. Therefore, the CAM requirements of 40 CFR Part 64 are not applicable to this permit.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to oil production operations served by a flare. Therefore, no further discussion is required.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to oil production operations served by a flare.

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. The method of operation of the flare is not being changed, and the flare is not being physically modified in any way. A review of the flare's compliance history shows that the flare has not violated this opacity requirement. Continued compliance is expected.

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

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-1738-427-2	0.007 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 E of this report, the emissions increases for this project was determined to be less than significant.

No special conditions are required to ensure compliance with this determination. No further discussion is required.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Compliance with this rule requires emissions units to have a stack that collects emissions and from this calculate a grain loading value. Since this elevated open flare is not equipped with a stack, and there is no practical method to install one, compliance with this standard cannot be shown. As long as the flare operation is smokeless, as required by permit condition, no excessive particulate matter emissions are expected. Therefore, compliance with this rule is expected.

Rule 4311 Flares

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NO_x), and sulfur oxides (SO_x) from the operation of flares. The provisions of this rule are applicable to operations involving the use of flares.

Section 4.0 of this rule specifies categories of flare operations that are exempt from the provisions of this rule. The flare in this project does not meet any of the provisions in Section 4.0 and is therefore not exempt from the requirements of this rule.

Section 5.0 outlines the requirements for flares as follows:

Section 5.1 Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.

The flare in this project is not designated or permitted to operate only during an emergency; therefore, the provisions of Section 5.1 are not applicable to the flare in this project.

Section 5.2 The flame shall be present at all times when combustible gases are vented through the flare.

Compliance with the provisions of Section 5.2 is expected. A permit condition will be retained to ensure continued compliance.

Section 5.3 The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.

The flare in this project uses a flow-sensing automatic ignition system and is therefore in compliance with this requirement. A permit condition will be retained to ensure continued compliance.

Section 5.4 Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The flare in this project uses a flow-sensing automatic ignition system; therefore, the provisions of Section 5.4 are not applicable to the flare in this project.

Section 5.5 contains requirements for flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. The flare in this project uses a flow-sensing automatic ignition system and is in compliance with this requirement. A permit condition will be retained to ensure continued compliance.

Section 5.6 contains requirements for open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares. The gas pressure for the flare in this project is greater than or equal to 5 psig; therefore, the provisions of Section 5.6 are not applicable to the flare in this project.

Section 5.7 outlines emissions standards for ground-level enclosed flares. The flare in this project is not a ground-level enclosed flare; therefore, the provisions of Section 5.7 are not applicable to the flare in this project.

Section 5.8 outlines the requirements for a flare minimization plan. Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.

The facility has previously submitted an approved flare minimization plan in compliance with the provisions of Section 6.5 and all commitments listed in that plan have been met. Continued operation consistent with the approved flare minimization plan is expected. Therefore, the compliance with the requirements of Section 5.8 is expected.

Section 5.9 contains requirements for petroleum refinery SO₂ performance targets.

- 5.9.1 Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.

5.9.2 Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.

The facility in this project is not a petroleum refinery; therefore, the provisions of Section 5.9 are not applicable to the flare in this project.

Section 5.10, effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.

The flare in this project is subject to flare minimization requirements pursuant to Section 5.8 and is equipped with a flow measuring device as required by the Permit to Operate. However, the flare is not capable of producing reportable flare events (as defined in Section 3.31 of this rule) since the permit contains conditions which limit the vent gas throughput to not exceed 300,000 scf per day and sulfur oxides emissions to not exceed 112.3 pounds per day, both limits are below the limits in Section 3.31. Therefore, the requirements of Section 5.10 are not applicable to the flare in this project.

Section 5.11 Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.

The facility is not a petroleum refinery and the flare in this project is rated at less than 50 MMBtu/hr; therefore, the provisions of Section 5.11 are not applicable to the flare in this project.

Compliance with the requirements of Section 5.0 is expected. The following conditions will be retained on the permit to ensure continued compliance with the provisions of this rule.

- The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Y
- The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Y
- Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Y
- The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 4311] Y

Section 6.1 outlines the recordkeeping requirements of the rule and requires the following records to be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

6.1.1 Copy of the compliance determination conducted pursuant to Section 6.4.1.

The flare in this project is not subject to the requirement of Section 5.6; therefore, the requirements of Section 6.4.1, and thus Section 6.1.1, are not applicable.

6.1.2 Copy of the source testing result conducted pursuant to Section 6.4.2.

The flare in this project is not subject to the requirement of Section 5.7; therefore, the requirements of Section 6.4.2, and thus Section 6.1.2, are not applicable.

6.1.3 For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.

The flare in this project is not designated for use only as an emergency flare; therefore, the provisions of Section 6.1.3 are not applicable to the flare in this project.

6.1.4 Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.

The operator of the flare in this project is not claiming an exemption pursuant to Section 4.3; therefore, the provisions of Section 6.1.4 are not applicable to the flare in this project.

6.1.5 Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.

The applicant supplied and has retained a copy of the approved flare minimization plan; therefore, compliance with the provisions of Section 6.1.5 is expected.

6.1.6 Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.

Compliance with the provisions of Section 6.1.6 is expected. A permit condition will be retained to ensure continued compliance.

6.1.7 Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.

The flare in this project is not subject to the requirements of Sections 5.10, 6.6, 6.7, 6.8, 6.9, or 6.10; therefore, the requirements of Section 6.1.7 are not applicable to the flare in this project.

Compliance with the requirements of Section 6.12 is expected. The following condition will be included on the permit to ensure compliance.

- Permittee shall maintain a copy of the approved flare minimization plan pursuant to Section 6.5 and a copy of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311, 6.1] Y

Section 6.2 outlines the flare reporting requirements of the rule and requires the following:

- 6.2.1 Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.

Compliance with the requirements of Section 6.2.1 is expected. The following condition will be included on the permit.

- The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Y

Section 6.2.2 requires the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period.

The flare in this project is subject to flare minimization requirements pursuant to Section 5.8; however, the flare is not capable of producing reportable flare events (as defined in Section 3.31 of this rule) since the permit contains conditions which limit the vent gas throughput to not exceed 300,000 scf per day and sulfur oxides emissions to not exceed 112.3 pounds per day, both limits are below the limits in Section 3.31. Therefore, the requirements of Section 6.2.2 are not applicable to the flare in this project.

Section 6.2.3 contains annual monitoring requirements and states: effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The flare in this project is not subject to the requirements of Sections 5.10, 6.6, 6.7, 6.8, 6.9, or 6.10; therefore, the requirements of Section 6.2.3 are not applicable to the flare in this project.

Section 6.4 outlines the requirements for determining compliance with specific requirements of the rule.

- 6.4.1 Upon request, the operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). The flare in this project is not subject to Section 5.6; therefore, the provisions of Section 6.4.1 are not applicable to the flare in this project.
- 6.4.2 The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing. The flare in this project is not subject to Section 5.7; therefore, the provisions of Section 6.4.1 are not applicable to the flare in this project.

Section 6.5 outlines the requirements for a flare minimization plan.

Section 6.5.1 requires the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:

- 6.5.1.1 A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.
- 6.5.1.2 Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.
- 6.5.1.3 A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.
- 6.5.1.4 An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.
- 6.5.1.5 An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.
- 6.5.1.6 An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.
- 6.5.1.7 Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.

Section 6.5.2 requires that the operator shall submit an updated FMP for each flare to the APCO for approval every five years after the initial FMP submittal. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.

Section 6.5.3 requires an updated FMP to be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if:

- 6.5.3.1 The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and
- 6.5.3.2 The ATC is deemed complete after June 18, 2009, and
- 6.5.3.3 The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.

Compliance with the requirements of Section 6.5 is expected. The following condition will be included on the permit.

- The operator shall submit an updated flare minimization plan every five years after the initial submittal, or prior to installation of new or modified equipment, pursuant to Section 6.5 of Rule 4311. [District Rule 4311] Y

Section 6.6 outlines requirements for vent gas composition monitoring for a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour. The flare in this project is not located at a petroleum refinery and is rated at less than 50 MMBtu per hour; therefore, the provisions of Section 6.6 are not applicable to the flare in this project.

Section 6.7 outlines requirements for pilot and purge gas monitoring for a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour. The flare in this project is rated at less than 50 MMBtu per hour; therefore, the provisions of Section 6.7 are not applicable to the flare in this project.

Section 6.8 outlines the provisions for water seal monitoring for the a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal. The flare in this project is not located at a petroleum refinery and is rated at less than 50 MMBtu per hour and is not equipped with a water seal; therefore, the provisions of Section 6.8 are not applicable to the flare in this project.

Section 6.9 outlines general monitoring provisions for a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour. The flare in this project is not located at a petroleum refinery and is rated at less than 50 MMBtu per hour; therefore, the provisions of Section 6.9 are not applicable to the flare in this project.

Section 6.10 requires video monitoring of flares located at a petroleum refinery. The flare in this project is not located at a petroleum refinery; therefore, the provisions of Section 6.10 are not applicable to the flare in this project.

Compliance with the requirements of District Rule 4311 is expected. No further discussion is required.

Rule 4801 Sulfur Compounds

The concentration of sulfur compounds in the exhaust of the flare can be calculated using the sulfur compound emission rate and heat input rate as follows:

$$\begin{aligned} \text{Concentration} &= (112.3 \text{ lb-SO}_2/0.300 \text{ MMscf gas}) \times (1 \text{ MMscf gas}/1,100 \text{ MMBtu gas}) \times (1 \\ &\text{ MMBtu gas}/8,620 \text{ dscf exhaust [measured F-Factor @ 60°F]}) \times (1 \text{ lb-mole} \\ &\text{ SO}_x/64 \text{ lb-SO}_2) \times (379.5 \text{ dscf SO}_2/1 \text{ lb-mole SO}_2) \\ &= 0.000234 \text{ dscf SO}_2/\text{dscf exhaust} \\ &= \mathbf{234 \text{ ppmv SO}_2}. \end{aligned}$$

As the concentration of sulfur compounds in the flare exhaust (234 ppmv) is significantly less than the rule limit of 2,000 ppmv, compliance with this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

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

Project specific impacts on global climate change were evaluated consistent with the adopted District policy – *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District's engineering evaluation (this document – Appendix H) demonstrates that the project includes Best Performance Standards

(BPS) for each class and category of greenhouse gas emissions unit. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending successful NSR Public Noticing and Rule 2520 (EPA) noticing periods, issue ATC S-1738-427-2 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1738-427-2	3020-02-G	10 MMBtu/hr flare	\$815.00

Appendices

- A: Draft ATC
- B: Current PTO
- C: BACT Guideline
- D: BACT Top-Down Analysis
- E: HRA and AAQA Summary
- F: Historical Actual Fuel Usage
- G: Gas Analysis Results
- H: Best Performance Standard (BPS)
- I: Compliance Certification
- J: Quarterly Net Emissions Change
- K: Emission Profile

APPENDIX A

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1738-427-2

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

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10 MMBTU/HR WASTE GAS FLARE USED TO INCINERATE PRODUCED GAS AND VAPORS FROM TANK VAPOR CONTROL SYSTEM LISTED ON S-1738-417 (LAYMAN TANK BATTERY) AND S-1738-422 (HONOLULU TANK BATTERY); INCREASE THE FLARE GAS THROUGHPUT FROM 235,000 SCF PER DAY TO 300,000 SCF PER DAY; REVISE THE GAS SULFUR TESTING FREQUENCY FROM EVERY 12 MONTHS TO ANNUALLY; INSTALL SULFUR REMOVAL VESSELS; AND, REMOVE REFERENCE TO PERMIT UNIT S-1738-422

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantities of emissions: 1st quarter - 443 lb, 2nd quarter - 444 lb, 3rd quarter - 444 lb, and fourth quarter - 444 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [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

DRAFT

DAVID WARNER, Director of Permit Services
S-1738-427-2 : Dec 3 2013 1:49PM - GILLESB : Joint Inspection NOT Required

4. ERC Certificate Numbers N-945-2, N-1090-2, S-4084-2, and S-826-2 (or any certificate split from these certificates) shall be used to supply the required NOx 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
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantities of emissions: 1st quarter - 45 lb, 2nd quarter - 45 lb, 3rd quarter - 45 lb, and fourth quarter - 45 lb. PM10 may be offset using SOx at an interpollutant offset ratio of 1.0 ton-SOx/ton-PM10. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number N-949-5 (or a certificate split from this certificate) shall be used to supply the required PM10 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
7. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 214 lb, 2nd quarter - 214 lb, 3rd quarter - 214 lb, and fourth quarter - 215 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Federally Enforceable Through Title V Permit
8. ERC Certificate Number S-3578-1 (or a certificate split from this certificate) shall be used to supply the required VOC 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
9. Operation shall include 25 foot tall Mactronic elevated waste gas flare with 1 h.p. air assist combustion blower and electronic pilot light re-ignition system. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas line to flare shall be equipped with an operational volumetric flow rate indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Pilot light shall be lit and fully extended to ignition position prior to routing waste gas to flare. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total gas flow rate to flare shall not exceed 300,000 scf per day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Operator shall immediately utilize air assisted combustion if flare exhibits smoke greater than 0% opacity. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
14. Emission rates shall not exceed any of the following: NOx (as NO2) - 0.068 lb/MMBtu, VOC - 0.034 lb/MMBtu, PM10 - 7.6 lb/MMscf, or CO - 0.370 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. SOx (as SO2) emission rate shall not exceed 112.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permittee shall measure and record the total volume of gas flared. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Measurement of gas sulfur content (H2S) shall be conducted at least once annually. If the result of the annual measurement demonstrates that the unit does not meet the applicable emission limits, the measurement frequency shall revert to once every month until three (3) consecutive measurements show compliance with the applicable emission limits, at which time measurement frequency may revert back to once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. Permittee shall maintain records of amount of total gas flared, annual records (or monthly records as required by this permit) of sulfur content of gas, and calculated average daily SO₂ emissions. Records shall be kept for a minimum of 5 years and shall be made readily available for District inspection upon request. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit
20. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
21. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
22. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311] Federally Enforceable Through Title V Permit
23. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
24. Permittee shall maintain a copy of the approved flare minimization plan pursuant to Section 6.5 and a copy of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
25. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
26. The operator shall submit an updated flare minimization plan every five years after the initial submittal, or prior to installation of new or modified equipment, pursuant to Section 6.5 of Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
27. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 4311] Federally Enforceable Through Title V Permit
28. Formerly S-2804-19.

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APPENDIX B
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1738-427-1

EXPIRATION DATE: 02/28/2014

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 20E

EQUIPMENT DESCRIPTION:

10 MMBTU/HR WASTE GAS FLARE USED TO INCINERATE PRODUCED GAS, AND VAPORS FROM TANK VAPOR CONTROL SYSTEM LISTED ON S-1738-417 (LAYMAN TANK BATTERY) AND S-1738-422 (HONOLULU TANK BATTERY)

PERMIT UNIT REQUIREMENTS

1. Formerly S-2804-19.
2. Operation shall include 25 foot tall Mactronic elevated waste gas flare with 1 h.p. air assist combustion blower and electronic pilot light re-ignition system. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas line to flare shall be equipped with an operational volumetric flow rate indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Pilot light shall be lit and fully extended to ignition position prior to routing waste gas to flare. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total gas flow rate to flare shall not exceed 235,000 scf per day on a monthly basis. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Operator shall immediately utilize air assisted combustion if flare exhibits smoke greater than 0% opacity. [District NSR Rule and 4101] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: NO_x (as NO₂) - 0.068 lb/MMBtu, VOC - 0.034 lb/MMBtu, PM₁₀ - 7.6 lb/MMscf, or CO - 0.370 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. SO_x (as SO₂) emission rate shall not exceed 112.3 lbs/day. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Permittee shall measure and record the total volume of gas flared on a monthly basis. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Measurement of gas sulfur content (H₂S) shall be conducted at least once every twelve (12) months. If the result of the 12-month measurement demonstrates that the unit does not meet the applicable emission limits, the measurement frequency shall revert to once every month until three (3) consecutive measurements show compliance with the applicable emission limits, at which time measurement frequency may revert back to once every twelve (12) months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H₂S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records of monthly amount of total gas flared, annual records (or monthly records as required by this permit) of sulfur content of gas, and calculated average daily SO₂ emissions. Records shall be kept for a minimum of 5 years and shall be made readily available for District inspection upon request. [District NSR Rule and 1070] Federally Enforceable Through Title V Permit

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

13. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
14. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
15. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
16. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

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

APPENDIX C
BACT Guideline

Best Available Control Technology (BACT) Guideline 1.4.2
Last Update: 12/31/1998

Waste Gas Flare - Incinerating Produced Gas

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable		
NOx	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable		
PM10	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.		
SOx	Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.	Precombustion SOx scrubbing system (non-emergency flares only.)	
VOC	Steam assisted or Air-assisted or Coanda effect burner, 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.

APPENDIX D
BACT Top-Down Analysis

Top-Down BACT Analysis for NOx Emissions for Waste Gas Flare – S-1738-427-2

Step 1 – Identify All Possible Control Technologies

From the SJVUAPCD BACT Clearinghouse, Guideline 1.4.2, Waste Gas Flare – Incinerating Produced Gas, identify BACT for NOx emissions as follows:

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable (Achieved in Practice)

There are no Technologically Feasible or Alternate Basic Equipment options listed in the BACT guideline.

Step 2 – Eliminate Technologically Infeasible Options

For this location, steam is not available; therefore, steam assisted flare is not a technologically feasible option.

Step 3 – Rank Remaining Control Technologies

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable

Step 4 – Cost Effectiveness Analysis

The flare in this project is an air-assisted flare, which meets the only option from Step 3 above; therefore, a cost effectiveness analysis is not required.

Step 5 – Select BACT

The applicant is proposing the most stringent option from Step 3: air-assisted flare. Therefore, the BACT requirement for NOx emissions is satisfied for this project.

Top-Down BACT Analysis for SOx Emissions for Waste Gas Flare – S-1738-427-2

Step 1 – Identify All Possible Control Technologies

From the SJVUAPCD BACT Clearinghouse, Guideline 1.4.2, Waste Gas Flare – Incinerating Produced Gas, identify BACT for SOx emissions as follows:

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable; Pilot Light fired solely on LPG or natural gas. (Achieved in Practice)
- Pre-combustion SOx scrubbing system (non-emergency flares only). (Technologically Feasible)

There are no Alternate Basic Equipment options listed in the BACT guideline.

Step 2 – Eliminate Technologically Infeasible Options

For this location, steam is not available; therefore, steam assisted flare is not a technologically feasible option.

Step 3 – Rank Remaining Control Technologies

- Pre-combustion SOx scrubbing system (non-emergency flares only). (Technologically Feasible)
- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable; Pilot Light fired solely on LPG or natural gas. (Achieved in Practice)

Step 4 – Cost Effectiveness Analysis

The flare in this project is a non-emergency, air-assisted flare. The facility has proposed to install pre-combustion sulfur removal/scrubbing vessels for reducing H₂S concentration in the gas stream prior to combustion. The use of pre-combustion sulfur removal/scrubbing vessels meets the technologically feasible option; therefore, a cost effectiveness analysis is not required.

Step 5 – Select BACT

The applicant is proposing the most stringent option from Step 3: pre-combustion SOx scrubbing system. Therefore, the BACT requirement for SOx emissions is satisfied for this project.

Top-Down BACT Analysis for CO Emissions for Waste Gas Flare – S-1738-427-2

Step 1 – Identify All Possible Control Technologies

From the SJVUAPCD BACT Clearinghouse, Guideline 1.4.2, Waste Gas Flare – Incinerating Produced Gas, identify BACT for CO emissions as follows:

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable. (Achieved in Practice)

There are no Technologically Feasible or Alternate Basic Equipment options listed in the BACT guideline.

Step 2 – Eliminate Technologically Infeasible Options

For this location, steam is not available; therefore, steam assisted flare is not a technologically feasible option.

Step 3 – Rank Remaining Control Technologies

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable

Step 4 – Cost Effectiveness Analysis

The flare in this project is an air-assisted flare, which meets the only option from Step 3 above; therefore, a cost effectiveness analysis is not required.

Step 5 – Select BACT

The applicant is proposing the most stringent option from Step 3: air-assisted flare. Therefore, the BACT requirement for CO emissions is satisfied for this project.

Top-Down BACT Analysis for VOC Emissions for Waste Gas Flare – S-1738-427-2

Step 1 – Identify All Possible Control Technologies

From the SJVUAPCD BACT Clearinghouse, Guideline 1.4.2, Waste Gas Flare – Incinerating Produced Gas, identify BACT for VOC emissions as follows:

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable. (Achieved in Practice)

There are no Technologically Feasible or Alternate Basic Equipment options listed in the BACT guideline.

Step 2 – Eliminate Technologically Infeasible Options

For this location, steam is not available; therefore, steam assisted flare is not a technologically feasible option.

Step 3 – Rank Remaining Control Technologies

- Stream assisted or Air-Assisted or Coanda effect burner, when steam unavailable

Step 4 – Cost Effectiveness Analysis

The flare in this project is an air-assisted flare, which meets the only option from Step 3 above; therefore, a cost effectiveness analysis is not required.

Step 5 – Select BACT

The applicant is proposing the most stringent option from Step 3: air-assisted flare. Therefore, the BACT requirement for VOC emissions is satisfied for this project.

APPENDIX E
HRA and AAQA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: David Torii, AQE – Permit Services
 From: Ester Davila, SAQS – Technical Services
 Date: August 26, 2013
 Facility Name: Vintage Production CA LLC
 Location: Heavy Oil Western
 Application #(s): S-1738-427-2
 Project #: S-1133220

A. RMR SUMMARY

RMR Summary			
Categories	Type of Unit (Unit 427-2)	Project Totals	Facility Totals
Prioritization Score	<1.0	<1.0	>1.0
Acute Hazard Index	0.00	0.00	0.46
Chronic Hazard Index	0.00	0.00	0.07
Maximum Individual Cancer Risk (10^{-6})	0.007	0.007	9.95
T-BACT Required?	No		
Special Permit Conditions?	No		

Proposed Permit Conditions

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

Unit # 427-2

1. No special conditions required

B. RMR REPORT

I. Project Description

Technical Services received a request on August 12, 2013, to perform an Ambient Air Quality Analysis and a Risk Management Review for an increase in flare throughput from 427 Mcf/day to 500 Mcf/day and 182.5 scf/yr.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using emission factors for external combustion of waste gas were input into the HEARTs database. 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:

Analysis Parameters Unit 427-2			
Source Type	Point	Location Type	Rural
Stack Height (m)	9.56	Closest Receptor (m)	701
Stack Diameter. (m)	0.55	Type of Receptor	Business
Stack Exit Velocity (m/s)	20	Max Hours per Year	8760
Stack Exit Temp. (°K)	1273	Fuel Type	Waste Gas
Burner Rating (MMBtu/hr)	10.0		

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀; as well as a RMR. The emission rates used for criteria pollutant modeling were 98.05 lb/hr CO, 18.02 lb/hr NO_x, 0.00 lb/hr SO_x, and 2.01 lb/hr PM₁₀.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

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

*Results were taken from the attached PSD spreadsheet.

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

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

III. Conclusion

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

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

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

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

IV. Attachments

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

APPENDIX F
Historical Actual Fuel Usage

The following data was provided by the applicant on 9/4/13 and represents the actual gas flowed to the flare for a 2 year (24 month) period from 8/1/2011 through 7/31/2013.

Date	Gas Flowed MCF
7/31/2013	202.2
7/30/2013	199.8
7/29/2013	199.9
7/28/2013	205.1
7/27/2013	199.9
7/26/2013	200.6
7/25/2013	215.3
7/24/2013	226
7/23/2013	258.7
7/22/2013	275.7
7/21/2013	275.7
7/20/2013	258.8
7/19/2013	270.1
7/18/2013	270.1
7/17/2013	269.7
7/16/2013	275.7
7/15/2013	270.1
7/14/2013	275.7
7/13/2013	287.7
7/12/2013	270
7/11/2013	273.5
7/10/2013	273.5
7/9/2013	268.6
7/8/2013	252.9
7/7/2013	250.2
7/6/2013	252.9
7/5/2013	252.9
7/4/2013	255.6
7/3/2013	252.9
7/2/2013	252.9
7/1/2013	252.9
6/30/2013	261.6
6/29/2013	264.4
6/28/2013	247.6
6/27/2013	252.9
6/26/2013	248.9
6/25/2013	247.5
6/24/2013	250.4
6/23/2013	250.4
6/22/2013	255.8
6/21/2013	253.1
6/20/2013	252.9
6/19/2013	250.2
6/18/2013	252.9
6/17/2013	252.9
6/16/2013	258.3
6/15/2013	247.5
6/14/2013	258.3
6/13/2013	252.9
6/12/2013	246.6
6/11/2013	249.7

6/10/2013	228.9
6/9/2013	249.7
6/8/2013	249.7
6/7/2013	239.3
6/6/2013	234.1
6/5/2013	258.6
6/4/2013	261.6
6/3/2013	247.1
6/2/2013	239.3
6/1/2013	239.3
5/31/2013	239.3
5/30/2013	244.5
5/29/2013	225.7
5/28/2013	218.4
5/27/2013	223.4
5/26/2013	218.4
5/25/2013	228.9
5/24/2013	228.9
5/23/2013	249.7
5/22/2013	249.7
5/21/2013	254.9
5/20/2013	249.7
5/19/2013	249.7
5/18/2013	244.5
5/17/2013	249.7
5/16/2013	249.7
5/15/2013	249.7
5/14/2013	247.1
5/13/2013	244.5
5/12/2013	244.5
5/11/2013	244.5
5/10/2013	244.5
5/9/2013	241.9
5/8/2013	239.3
5/7/2013	243.2
5/6/2013	243.8
5/5/2013	223.4
5/4/2013	249.7
5/3/2013	249.7
5/2/2013	247.4
5/1/2013	244.5
4/30/2013	234.1
4/29/2013	244.5
4/28/2013	241.9
4/27/2013	249.7
4/26/2013	239.3
4/25/2013	239.3
4/24/2013	261.6
4/23/2013	256.2
4/22/2013	255.7
4/21/2013	255.7
4/20/2013	250.3
4/19/2013	273.5
4/18/2013	259.3
4/17/2013	245

4/16/2013	239.5
4/15/2013	245
4/14/2013	239.3
4/13/2013	241.9
4/12/2013	239.3
4/11/2013	242.7
4/10/2013	236.7
4/9/2013	208.1
4/8/2013	218.5
4/7/2013	228.9
4/6/2013	172.8
4/5/2013	163.5
4/4/2013	133.5
4/3/2013	149.1
4/2/2013	181.1
4/1/2013	186.4
3/31/2013	154.4
3/30/2013	152.6
3/29/2013	243.9
3/28/2013	242.7
3/27/2013	237.8
3/26/2013	242.7
3/25/2013	241.5
3/24/2013	242.7
3/23/2013	237.8
3/22/2013	235.4
3/21/2013	232.9
3/20/2013	235.4
3/19/2013	242.7
3/18/2013	240.3
3/17/2013	240.3
3/16/2013	239.1
3/15/2013	241.5
3/14/2013	241.6
3/13/2013	241.5
3/12/2013	237.8
3/11/2013	237.2
3/10/2013	230
3/9/2013	227.6
3/8/2013	235.4
3/7/2013	245.2
3/6/2013	244.6
3/5/2013	257.4
3/4/2013	257.4
3/3/2013	257.4
3/2/2013	245.2
3/1/2013	245.2
2/28/2013	240.3
2/27/2013	242.7
2/26/2013	242.7
2/25/2013	255
2/24/2013	247.6
2/23/2013	258.9
2/22/2013	244.4
2/21/2013	256.3

2/20/2013	248.6
2/19/2013	256.3
2/18/2013	253.5
2/17/2013	250.7
2/16/2013	253.2
2/15/2013	240.3
2/14/2013	235.7
2/13/2013	243.4
2/12/2013	230.7
2/11/2013	238.2
2/10/2013	225.6
2/9/2013	203.5
2/8/2013	223.1
2/7/2013	220.6
2/6/2013	220.6
2/5/2013	208.4
2/4/2013	220.6
2/3/2013	215.7
2/2/2013	207.2
2/1/2013	213.3
1/31/2013	210.8
1/30/2013	208.4
1/29/2013	208.4
1/28/2013	208.4
1/27/2013	201.2
1/26/2013	213.2
1/25/2013	213.2
1/24/2013	240.7
1/23/2013	248.6
1/22/2013	258.9
1/21/2013	269.1
1/20/2013	256.3
1/19/2013	256.3
1/18/2013	228
1/17/2013	189.3
1/16/2013	196
1/15/2013	196.1
1/14/2013	194.2
1/13/2013	189.5
1/12/2013	201.8
1/11/2013	203.5
1/10/2013	198.6
1/9/2013	249.2
1/8/2013	200
1/7/2013	226.8
1/6/2013	225.5
1/5/2013	223.1
1/4/2013	245.7
1/3/2013	228
1/2/2013	230.4
1/1/2013	227.6
12/31/2012	225.4
12/30/2012	220
12/29/2012	222.8
12/28/2012	222.8

12/27/2012	230.4
12/26/2012	230.4
12/25/2012	235.4
12/24/2012	231.7
12/23/2012	224
12/22/2012	224
12/21/2012	229.1
12/20/2012	220.4
12/19/2012	225.5
12/18/2012	232.4
12/17/2012	218
12/16/2012	215.3
12/15/2012	123.8
12/14/2012	150.4
12/13/2012	134.4
12/12/2012	141.1
12/11/2012	137.1
12/10/2012	133.3
12/9/2012	134.9
12/8/2012	122
12/7/2012	141.1
12/6/2012	133.3
12/5/2012	135.2
12/4/2012	133
12/3/2012	133.3
12/2/2012	125.7
12/1/2012	135
11/30/2012	135.1
11/29/2012	129.5
11/28/2012	137.1
11/27/2012	138.6
11/26/2012	149.7
11/25/2012	156.8
11/24/2012	129.1
11/23/2012	127.3
11/22/2012	123.8
11/21/2012	123.8
11/20/2012	123.7
11/19/2012	107.8
11/18/2012	109.2
11/17/2012	161.3
11/16/2012	168.1
11/15/2012	130.6
11/14/2012	127.4
11/13/2012	152.4
11/12/2012	104.2
11/11/2012	136.4
11/10/2012	126
11/9/2012	148.8
11/8/2012	147.6
11/7/2012	161.9
11/6/2012	150.4
11/5/2012	158.1
11/4/2012	146
11/3/2012	147.9

11/2/2012	154.1
11/1/2012	149.5
10/31/2012	159
10/30/2012	158.1
10/29/2012	163.3
10/28/2012	161.3
10/27/2012	155.4
10/26/2012	154.3
10/25/2012	151.2
10/24/2012	149.2
10/23/2012	147.2
10/22/2012	153.2
10/21/2012	161.7
10/20/2012	156.2
10/19/2012	163.8
10/18/2012	162.7
10/17/2012	152.9
10/16/2012	153.2
10/15/2012	157.3
10/14/2012	149.2
10/13/2012	163.6
10/12/2012	152.2
10/11/2012	153.2
10/10/2012	158.3
10/9/2012	161.3
10/8/2012	156.8
10/7/2012	156.8
10/6/2012	154.9
10/5/2012	173.4
10/4/2012	179.5
10/3/2012	175.4
10/2/2012	164.7
10/1/2012	154.9
9/30/2012	149
9/29/2012	161.7
9/28/2012	165.4
9/27/2012	172.5
9/26/2012	168.6
9/25/2012	156.8
9/24/2012	148
9/23/2012	145.1
9/22/2012	156.2
9/21/2012	146.6
9/20/2012	147.1
9/19/2012	147
9/18/2012	147
9/17/2012	157.3
9/16/2012	155.3
9/15/2012	165.8
9/14/2012	165.4
9/13/2012	172
9/12/2012	151.2
9/11/2012	156.3
9/10/2012	142.8
9/9/2012	146.6

9/8/2012	146.6
9/7/2012	138.1
9/6/2012	147.2
9/5/2012	136.3
9/4/2012	161.3
9/3/2012	159.3
9/2/2012	156.3
9/1/2012	164
8/31/2012	161.7
8/30/2012	159.6
8/29/2012	137.1
8/28/2012	154.3
8/27/2012	139
8/26/2012	151.2
8/25/2012	153.2
8/24/2012	149.2
8/23/2012	159.6
8/22/2012	145.2
8/21/2012	153.4
8/20/2012	188.4
8/19/2012	211.7
8/18/2012	149.9
8/17/2012	157.1
8/16/2012	147
8/15/2012	151
8/14/2012	149
8/13/2012	151.9
8/12/2012	162.7
8/11/2012	166.6
8/10/2012	165.7
8/9/2012	171.4
8/8/2012	169.4
8/7/2012	167.4
8/6/2012	162.7
8/5/2012	171.4
8/4/2012	166.6
8/3/2012	171.4
8/2/2012	167.4
8/1/2012	174.4
7/31/2012	174.4
7/30/2012	171.4
7/29/2012	169.4
7/28/2012	167.4
7/27/2012	165.4
7/26/2012	192.7
7/25/2012	171.7
7/24/2012	171.4
7/23/2012	189.1
7/22/2012	177.5
7/21/2012	177
7/20/2012	166.7
7/19/2012	177.5
7/18/2012	163.8
7/17/2012	171.4
7/16/2012	173

7/15/2012	165
7/14/2012	158
7/13/2012	132
7/12/2012	137.2
7/11/2012	170.8
7/10/2012	146.2
7/9/2012	132.3
7/8/2012	168.4
7/7/2012	149.2
7/6/2012	151.2
7/5/2012	143.2
7/4/2012	142
7/3/2012	131.3
7/2/2012	145.2
7/1/2012	165.4
6/30/2012	147.2
6/29/2012	155.3
6/28/2012	149
6/27/2012	161.3
6/26/2012	139
6/25/2012	123.8
6/24/2012	135.3
6/23/2012	143.2
6/22/2012	137.2
6/21/2012	149
6/20/2012	147.6
6/19/2012	153.2
6/18/2012	151.2
6/17/2012	176.4
6/16/2012	159.3
6/15/2012	159.6
6/14/2012	161.8
6/13/2012	167.4
6/12/2012	161.3
6/11/2012	163.3
6/10/2012	162.3
6/9/2012	154.9
6/8/2012	151
6/7/2012	149.2
6/6/2012	150
6/5/2012	156.8
6/4/2012	152.9
6/3/2012	149
6/2/2012	141.1
6/1/2012	163.7
5/31/2012	156.8
5/30/2012	149
5/29/2012	147.2
5/28/2012	151.3
5/27/2012	152.1
5/26/2012	151.2
5/25/2012	156.3
5/24/2012	153.2
5/23/2012	149
5/22/2012	147

5/21/2012	152.9
5/20/2012	142.8
5/19/2012	157.3
5/18/2012	161.3
5/17/2012	165.8
5/16/2012	157.5
5/15/2012	151.2
5/14/2012	155.4
5/13/2012	149.2
5/12/2012	147.2
5/11/2012	177.5
5/10/2012	171.4
5/9/2012	180.3
5/8/2012	191.6
5/7/2012	175.6
5/6/2012	186
5/5/2012	184.8
5/4/2012	185.5
5/3/2012	190.3
5/2/2012	179.1
5/1/2012	186.7
4/30/2012	204.3
4/29/2012	167
4/28/2012	128.8
4/27/2012	160.2
4/26/2012	167.6
4/25/2012	138.5
4/24/2012	134.1
4/23/2012	142.1
4/22/2012	137.6
4/21/2012	137.6
4/20/2012	137.3
4/19/2012	150.6
4/18/2012	137.3
4/17/2012	155.9
4/16/2012	141.7
4/15/2012	130.6
4/14/2012	108.5
4/13/2012	136.4
4/12/2012	70.4
4/11/2012	69.4
4/10/2012	68.4
4/9/2012	70.2
4/8/2012	90.2
4/7/2012	87.6
4/6/2012	90.2
4/5/2012	74.2
4/4/2012	58.4
4/3/2012	62.1
4/2/2012	63
4/1/2012	62.2
3/31/2012	72.2
3/30/2012	74.7
3/29/2012	68.3
3/28/2012	80.6

3/27/2012	78.8
3/26/2012	75.3
3/25/2012	91.4
3/24/2012	100.9
3/23/2012	100.9
3/22/2012	81.3
3/21/2012	86.2
3/20/2012	103.8
3/19/2012	105.9
3/18/2012	98
3/17/2012	96.8
3/16/2012	98.1
3/15/2012	87.6
3/14/2012	121
3/13/2012	109.8
3/12/2012	100.8
3/11/2012	100.8
3/10/2012	109.8
3/9/2012	116.5
3/8/2012	127
3/7/2012	140.5
3/6/2012	159.6
3/5/2012	120.1
3/4/2012	97.9
3/3/2012	107.6
3/2/2012	133.1
3/1/2012	152.9
2/29/2012	85.7
2/28/2012	102.8
2/27/2012	127.7
2/26/2012	91.4
2/25/2012	104.8
2/24/2012	114.9
2/23/2012	110.9
2/22/2012	127.7
2/21/2012	97.9
2/20/2012	164.9
2/19/2012	140
2/18/2012	165.2
2/17/2012	158.5
2/16/2012	134.1
2/15/2012	139.7
2/14/2012	148.2
2/13/2012	167.6
2/12/2012	157.6
2/11/2012	150.1
2/10/2012	142.6
2/9/2012	172.5
2/8/2012	168.6
2/7/2012	148
2/6/2012	141.1
2/5/2012	147.9
2/4/2012	147.1
2/3/2012	147.9
2/2/2012	146.9

2/1/2012	154.6
1/31/2012	156.8
1/30/2012	159.1
1/29/2012	155.1
1/28/2012	157.3
1/27/2012	140
1/26/2012	141.1
1/25/2012	141.1
1/24/2012	141.1
1/23/2012	142.2
1/22/2012	146.2
1/21/2012	146.2
1/20/2012	161.3
1/19/2012	160.3
1/18/2012	167.2
1/17/2012	163.9
1/16/2012	167.1
1/15/2012	157.6
1/14/2012	167.6
1/13/2012	148.2
1/12/2012	155.5
1/11/2012	140.9
1/10/2012	146
1/9/2012	143.2
1/8/2012	140.5
1/7/2012	140
1/6/2012	141.9
1/5/2012	146.7
1/4/2012	136.2
1/3/2012	136.2
1/2/2012	129.5
1/1/2012	131.3
12/31/2011	131.3
12/30/2011	131.4
12/29/2011	140.4
12/28/2011	135.2
12/27/2011	141.8
12/26/2011	134
12/25/2011	132.9
12/24/2011	132.9
12/23/2011	132.9
12/22/2011	128.9
12/21/2011	67.6
12/20/2011	146
12/19/2011	148.1
12/18/2011	144.1
12/17/2011	143.1
12/16/2011	150.7
12/15/2011	148.3
12/14/2011	119.5
12/13/2011	128.6
12/12/2011	117.2
12/11/2011	121
12/10/2011	129
12/9/2011	116.7

12/8/2011	140.1
12/7/2011	140.1
12/6/2011	123.8
12/5/2011	128.5
12/4/2011	139.2
12/3/2011	109.6
12/2/2011	83
12/1/2011	115.5
11/30/2011	144.9
11/29/2011	140.1
11/28/2011	125.5
11/27/2011	127.5
11/26/2011	128.5
11/25/2011	133.4
11/24/2011	135.1
11/23/2011	132
11/22/2011	135.3
11/21/2011	133.3
11/20/2011	133.3
11/19/2011	140.9
11/18/2011	132.9
11/17/2011	143.7
11/16/2011	155
11/15/2011	43.7
11/14/2011	36.8
11/13/2011	35.7
11/12/2011	29.7
11/11/2011	32.3
11/10/2011	46
11/9/2011	37.2
11/8/2011	28.5
11/7/2011	28.3
11/6/2011	26.7
11/5/2011	28.9
11/4/2011	32.5
11/3/2011	28.9
11/2/2011	32.5
11/1/2011	32.5
10/31/2011	36.6
10/30/2011	32.1
10/29/2011	31.2
10/28/2011	35.6
10/27/2011	23
10/26/2011	28.2
10/25/2011	27.4
10/24/2011	27.1
10/23/2011	24.7
10/22/2011	22.6
10/21/2011	34.5
10/20/2011	22.9
10/19/2011	21.4
10/18/2011	25.2
10/17/2011	26.3
10/16/2011	26.9
10/15/2011	27.2

10/14/2011	26
10/13/2011	98.1
10/12/2011	92.4
10/11/2011	106.7
10/10/2011	104.5
10/9/2011	108.8
10/8/2011	113
10/7/2011	95
10/6/2011	119.2
10/5/2011	117.9
10/4/2011	107.6
10/3/2011	121.1
10/2/2011	122.3
10/1/2011	123.9
9/30/2011	119.6
9/29/2011	112.5
9/28/2011	109.7
9/27/2011	117.5
9/26/2011	119.9
9/25/2011	112.9
9/24/2011	95.6
9/23/2011	95.9
9/22/2011	95.2
9/21/2011	98.1
9/20/2011	101
9/19/2011	106.7
9/18/2011	109.7
9/17/2011	113.9
9/16/2011	103.3
9/15/2011	106.7
9/14/2011	105.6
9/13/2011	113.9
9/12/2011	115.6
9/11/2011	116.3
9/10/2011	120
9/9/2011	111.7
9/8/2011	117.5
9/7/2011	73
9/6/2011	46
9/5/2011	45
9/4/2011	18
9/3/2011	26
9/2/2011	84.6
9/1/2011	83.9
8/31/2011	87.7
8/30/2011	93.4
8/29/2011	82
8/28/2011	76.4
8/27/2011	72.9
8/26/2011	78.8
8/25/2011	95.8
8/24/2011	101.9
8/23/2011	105.8
8/22/2011	104.5
8/21/2011	105.1

8/20/2011	107.6
8/19/2011	100.1
8/18/2011	101.9
8/17/2011	104.2
8/16/2011	105.7
8/15/2011	106.9
8/14/2011	107.6
8/13/2011	108.2
8/12/2011	108.9
8/11/2011	107.6
8/10/2011	110
8/9/2011	107
8/8/2011	108.3
8/7/2011	107
8/6/2011	107
8/5/2011	107
8/4/2011	112
8/3/2011	111.8
8/2/2011	110.8
8/1/2011	109.5

The following calculations were provided by the applicant.

Average MCF/Day 8/1/2011 to 7/31/2012	121.50
Average MCF/Day 8/1/2012 to 7/31/2013	204.47
Average MCF/Day over 24 Months	162.93
Total MCF 8/1/2011 to 7/31/2012	44,468
Total MCF 8/1/2012 to 7/31/2013	74,631
Average MCF/year (12 Months)	59,550
BAE	59,550 MCF
UBC	26,225 MCF
Post Project Proposed Limit	109,500 MCF
Increase	23,725 MCF

APPENDIX G
Gas Analysis Results



Vintage Production of California LLC
9600 Ming Ste 300
Bakersfield, CA 93311

Reported: 08/12/2013 10:24
Project: Gas Samples
Project Number: VT55412171
Project Manager: Jerry Frost

Sulfur Analysis In Natural Gas

BCL Sample ID: 1316391-01	Client Sample Name: McDonald Anticline Flare, 8/5/2013 3:49:00PM, Rick Ogletree
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hydrogen Sulfide	2900	ppm	100	100	ASTM-D3246			1
Total Sulfur	180	grs S/100 SCF	6.0	6.0	ASTM-D3246			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	ASTM-D3246	08/08/13	08/08/13 15:43	RDC	Inst	100	BWH0789

APPENDIX H
Best Performance Standard (BPS)

Best Performance Standard (BPS) Demonstration of Compliance

The following Best Performance Standards (BPS) (in order of recommendation) are recommend for this class (*VOC Control/Gas Disposal*) and category (*Oil and Gas Production, Processing, and Refining*) of equipment/operation:

- 1) -Incineration in existing engine, boiler, etc. that creates useful work – provided that equipment is available and practically capable of incinerating vapors and currently burning fossil fuel; or

-Transfer to Sales Gas Line – provided that access to sales gas line infrastructure is available; or

-Reinjection to Formation – provided that access to a disposal well is available.

For this location, there is no existing engine, boiler, or other equipment that can incinerate the gas to create useful work; there is no available access to sales gas line infrastructure; and there is no access to a disposal well. Therefore, the above requirements are not available for the operation in this project.

The following supersede the BPS requirements above if: a) equipment listed above is not available; or, b) gas cannot safely be transferred to equipment listed above; or, c) used to control emergency gas releases. As previously mentioned, the equipment listed above is not available; therefore, the following options supersede the BPS requirements listed above.

- 2) -Incineration in new Thermal Oxidizer; or,

-Incineration in New Flare with >98% TOC destruction efficiency, steam assist, air assist when steam not available, or Coanda effect and equipped with non-continuous automatic, electronic, or ballistic ignition; or,

-Incineration in Existing Thermal Oxidizer or Flare.

The gas from the operation in this project is incinerated in an existing flare; therefore, the project meets the BPS from 2) above. The District-approved BPS is attached for reference.

**San Joaquin Valley
Unified Air Pollution Control District
Best Performance Standard (BPS) x.x.xx**

Date: 08/02/2011

Class	VOC Control/Gas Disposal	
Category	Oil and Gas Production, Processing, and Refining	
Best Performance Standard (in order of recommendation)	<p>1) -Incineration in existing engine, boiler, etc that creates useful work – provided that equipment is available and practically capable of incinerating vapors (see equipment specific BPS for standards and requirements for new fired equipment) and currently burning fossil fuel; or,</p> <p>-Transfer to Sales Gas Line – provided that access to sales gas line infrastructure is available; or,</p> <p>-Reinjection to Formation – provided that access to a disposal well is available.</p>	
	<p>The following options supersede the BPS requirements above if: a) equipment listed above is not available; or, b) gas cannot safely be transferred to equipment listed above; or, c) used to control emergency gas releases.</p> <p>2) -Incineration in new Thermal Oxidizer – see equipment specific Thermal Oxidizer BPS for standards and requirements for new equipment; or,</p> <p>-Incineration in New Flare with >98% TOC destruction efficiency, steam assist, air assist when steam is not available, or Coanda effect and equipped with non-continuous automatic electronic or ballistic ignition; or,</p> <p>-Incineration in Existing Thermal Oxidizer or Flare</p>	
Percentage Achieved GHG Emission Reduction Relative to Baseline Emissions	Gas-Fired Equipment	100%
	Transfer to Sales Gas Line	100%
	Reinjection to Formation	100%
	New Thermal Oxidizer	100%
	New Flare	1.5%
	Existing Thermal Oxidizer or Flare	0%
District Project Number	S-1103964	
Evaluating Engineer	Kristopher Rickards	
Lead Engineer	Leonard Scandura, P.E.	
Public Notice: Start Date	May 31, 2011	
Public Notice: End Date	June 30, 2011	
Determination Effective Date	August 2, 2011	

APPENDIX I
Compliance Certification

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

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

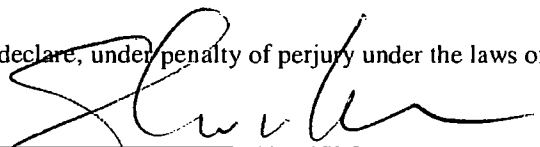
- [X] SIGNIFICANT PERMIT MODIFICATION [] ADMINISTRATIVE
[] MINOR PERMIT MODIFICATION [] AMENDMENT

COMPANY NAME: VINTAGE PRODUCTION CALIFORNIA, LLC	FACILITY ID: S - 1738
1. Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility	
2. Owner's Name:	
3. Agent to the Owner:	

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

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

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



Signature of Responsible Official

8/1/2013

Date

Shawn M. Kerns

Name of Responsible Official (please print)

President and General Manager

Title of Responsible Official (please print)

Mailing Address: Central Regional Office * 1990 E. Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6061

August 2, 2013

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

**Subject: Project Number 1000XXX
Federal Major Modification Compliance Certification**

Dear Mr. Scandura:

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

A handwritten signature in black ink, appearing to be 'J. Scandura', written over a horizontal line.

Signature

President and General Manager

Title

APPENDIX J
Quarterly Net Emissions Change (QNEC)

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 - PE1, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- PE1 = Pre-Project Potential to Emit 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 PE1 can be calculated as follows:

$$PE2_{\text{quarterly}} = PE2_{\text{annual}} \div 4 \text{ quarters/year}$$

$$PE1_{\text{quarterly}} = PE1_{\text{annual}} \div 4 \text{ quarters/year}$$

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	2,047.75	1,604.00	443.75
SO _x	10,247.50	10,247.50	0.00
PM ₁₀	207.75	162.75	45.00
CO	11,141.75	8,727.50	2,414.25
VOC	1,023.75	802.00	221.75

APPENDIX K
Emission Profile

Permit #: S-1738-427-2	Last Updated
Facility: VINTAGE PRODUCTION CALIFORNIA	11/21/2013 GILLESR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	8191.0	40990.0	831.0	44567.0	4095.0
Daily Emis. Limit (lb/Day)	22.4	112.3	2.3	122.1	11.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	443.0	0.0	45.0	2414.0	221.0
Q2:	444.0	0.0	45.0	2414.0	222.0
Q3:	444.0	0.0	45.0	2414.0	222.0
Q4:	444.0	0.0	45.0	2415.0	222.0
Check if offsets are triggered but exemption applies	N	N	N	Y	N
Offset Ratio	1.5		1.5		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	665.0		67.0		332.0
Q2:	666.0		67.0		333.0
Q3:	666.0		67.0		333.0
Q4:	666.0		67.0		333.0