



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



OCT 16 2014

Mr. Douglas Shaffer
Vintage Production California, LLC
9300 Ming Avenue
Bakersfield, CA 93311

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1738
Project # 1143395**

Dear Mr. Shaffer:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Vintage Production California, LLC has requested Authority to Construct permits for the installation of two new volatile organic compound destruction devices.

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

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

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:DBT/st

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

Northern Region
4800 Enterprise Way
Modesto, CA 95358-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6081

Southern Region
34948 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Two New VOC Destruction Devices

Facility Name: Vintage Production California, LLC

Mailing Address: 9300 Ming Avenue
Bakersfield, CA 93311

Engineer: David Torii

Lead Engineer: Allan Phillips *ASUPRAQE*

Contact Person: WM. Douglas Shaffer, P.E.

Telephone: (661) 869-8237

SEP 30 2014

Fax: (661) 869-8170

E-Mail: William.Shaffer@oxy.com

Application #(s): S-1738-496-0 and '497-0

Project #: 1143395

Deemed Complete: 8/26/14

I. Proposal

Vintage Production California, LLC (Vintage) has requested Authority to Construct (ATC) permits for the installation of two new Coyote North Ltd. Model CNTOX8 (Coyotes) or District approved equivalent volatile organic compound (VOC) destruction devices (VDDs).

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.

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 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 Pleito Ranch lease in the northeast quarter of Section 36, T.11N., R.21W in Vintage's Light Oil Western stationary source. 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 Pleito Ranch produced gas is transferred from the property via a pipeline operated by Crestwood (formerly Inergy). The Pleito Ranch lease production is expanding and the new VDDs will provide a safe outlet to dispose of excess gas and in the event the Crestwood pipeline should become temporarily inaccessible.

A process flow diagram showing the placement the VDDs at the Pleito Ranch Lease can be found in Appendix B.

V. Equipment Listing

S-1738-496-0: 75.7 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX8 VOC DESTRUCTION DEVICE (OR EQUIVALENT)

S-1738-497-0: 75.7 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX8 VOC DESTRUCTION DEVICE (OR EQUIVALENT)

VI. Emission Control Technology Evaluation

Coyote North Ltd. Incinerators use a dual air intake process for combustion. Air is mixed concentrically with the fuel at the burner tip and air is also naturally drafted through the bottom air intakes. Coyote North Ltd.'s Multifarious Burner System allows for an adjustable mixing ratio between primary and secondary air at the burner nozzle. This creates the optimum flame and the highest destruction efficiency at over 99.9%. Only natural air induction is required; therefore, no blowers or fans are required.

VII. General Calculations

A. Assumptions

- The equipment will operate 24 hr/day and 4075 hours per year.
- The maximum quantity of gas combusted in each new VDD will be limited to 75.7 MMBtu/hr
- The combusted gas will have a sulfur content less than 0.5 gr/100 scf, (Applicant); equivalent to 0.0014 lb/SOx/MMBtu
- There is no pilot light associated with the VDD

B. Emission Factors

	Emission Factor (lb/MMBtu)	Source
NO _x	0.023	Manufacturer
SO _x	0.0014	(based on 0.75 gr-scf & 1500 Btu/scf)
PM ₁₀	0.008	FYI – 83
CO	0.008	Manufacturer
VOC	0.004	Manufacturer

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

Daily Post Project Emissions				
Pollutant	Emissions Factor (lb/MMbtu)	Rating (MMBtu/hr)	Daily Hours of Operation (hrs/day)	PE2 Total (lb/day)
NO _x	0.023	75.7	24	41.8
SO _x	0.0014	75.7	24	2.5
PM ₁₀	0.008	75.7	24	14.5
CO	0.008	75.7	24	14.5
VOC	0.004	75.7	24	7.3

Annual Post Project Emissions					
Pollutant	Emissions Factor (lb/MMbtu)	Rating (MMBtu/hr)	Annual Hours of Operation (hrs/yr)	PE2 Total (lb/yr)	
				One VDD	Two VDDs
NO _x	0.023	75.7	4,075	7,095	14,190
SO _x	0.0014	75.7	4,075	432	864
PM ₁₀	0.008	75.7	4,075	2,468	4,936
CO	0.008	75.7	4,075	2,468	4,936
VOC	0.004	75.7	4,075	1,234	2,468

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.

This source is an existing Major Source for all pollutants and will remain so.

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)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	>250					
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	y					

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

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.

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

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 pollutants, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	30,504	50,000	Y
SO _x	1,856	80,000	N
PM ₁₀	10,610	30,000	N
VOC	5,306	50,000	N

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.

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

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

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	14,190	0	Y
VOC*	864	0	Y
PM ₁₀	4,936	30,000	N
PM _{2.5}	4,936	20,000	N
SO _x	2,468	80,000	N

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

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

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

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 PSD Major Source. Because the project is not located within 10 km (6.2 miles) 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. Project Emission Increase – Significance Determination

a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no further PSD analysis is needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO2	SO2	CO	PM	PM10
Total PE from New and Modified Units	7.1	0.4	2.5	2.5	2.5
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission increase?	n	n	n	n	n

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 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 A.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

As seen in Section VII.C.2 above, the applicant is proposing to install new VDDs, each with a PE greater than 2 lb/day for NO_x, SO_x, PM₁₀, CO, and VOC. Therefore, BACT is triggered for NO_x, SO_x, PM₁₀, VOC and CO.

2. BACT Guideline

BACT Guideline 1.4.1, applies to the VDD (see projects S1133536 and S1142021). [waste gas flare – 15.3 MMBtu/hr, serving a tank vapor control system] (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 C), BACT has been satisfied with the following:

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

B. Offsets

1. Offset Applicability

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

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

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

2. Quantity of Offsets Required

As seen above, the facility is an existing NSR Major Source for NO_x, SO_x, PM₁₀, CO, VOC, and the SSPE2 is greater than the offset thresholds for these pollutants; therefore, offset calculations will be required for this project.

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

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

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

Where,

- PE2 = Post Project Potential to Emit, (lb/year)
- BE = Baseline Emissions, (lb/year)
- ICCE = Increase in Cargo Carrier Emissions, (lb/year)
- DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

The facility is proposing to install new emissions units; therefore their BEs = 0. Also, there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

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

Offsets Required (lb/year)							
	Total PE2 (total emissions for S-1738- 496-0 and '497-0)	BE	ICCE	Offsets Required (PE2 - BE - ICCE)	at offset ratio of 1.5:1	Offsets Required at 1.5:1 (lb/qtr)	
						For Two VDDs	For One VDD
NO _x	14,190	0	0	14,190	21,285	5,321	2,661
SO _x	864	0	0	864	1,296	324	162
PM ₁₀	4,936	0	0	4,936	7,403	1,851	925
VOC	2,468	0	0	2,468	3,702	925	463

The applicant has stated that the facility plans to use the following ERC certificates which have available quarterly credits as follows:

	NO _x			
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
ERC C-1289-2	5,750	5,750	5,750	5,750
Total Offsets Required at 1.5:1	5,321	5,321	5,321	5,321

SO _x and PM ₁₀				
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
ERC C-1293-5	2,250	2,250	2,250	2,250
Total SO _x plus PM ₁₀ Offsets Required at 1.5:1	2,175	2,175	2,175	2,175

Interpollutant offset ratios for trades between SO_x and PM₁₀ are allowed pursuant to Rule 2201, Section 4.13.3.1.2. Pursuant to draft District policy APR 1430, SO_x ERCs may be used to offset PM₁₀ at an interpollutant ratio of 1.0 : 1.0. An interpollutant ratio of 1.0 : 1.0 for SO_x to PM₁₀ will be applied.

VOC				
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
ERC S-4300-1	1,000	1,000	1,000	1,000
Total Offsets Required at 1.5:1	925	925	925	925

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

Proposed Rule 2201 (offset) Conditions (for each steam generator):

- Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits for the following quantity of emissions: 1st quarter – 2,661 lb, 2nd quarter – 2,661 lb, 3rd quarter – 2,661 lb, and fourth quarter – 2,661 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number C-1289-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
- Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits for the following quantity of emissions: 1st quarter – 1,087 lb, 2nd quarter – 1,087 lb, 3rd quarter – 1,087 lb, and fourth quarter – 1,087 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number C-1293-5 (or a certificate split from this certificate) shall be used to supply the required **SOx** and **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]
- Prior to operating equipment under this Authority to Construct, permittee shall surrender **VOC** emission reduction credits for the following quantity of emissions: 1st quarter – 463 lb, 2nd quarter – 463 lb, 3rd quarter – 463 lb, and fourth quarter – 463 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers S-4300-1 (or a certificate split from these certificates) 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]

C. Public Notification

1. Applicability

Public noticing is required for:

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

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

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

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

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As

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

c. Offset Threshold

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	>20,000	>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

SSIPE Public Notice Thresholds			
Pollutant	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	14,190	20,000 lb/year	No
SO _x	864	20,000 lb/year	No
PM ₁₀	4,936	20,000 lb/year	No
CO	4,936	20,000 lb/year	No
VOC	2,468	20,000 lb/year	No

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

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for NO_x and VOC emissions triggering a Federal Major Modification and a Title V Significant Permit Modification. Therefore, public notice documents will be submitted to the California Air

Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATCs 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.

Proposed Rule 2201 (DEL) Conditions:

- Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO_x/MMBtu; 0.0014 lb-SO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Y

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required 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:

- The permittee shall keep accurate daily records of volume of gas combusted and hours of operation for a period of five years, and shall make such records available for District inspection upon request. [District Rule 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. Refer to Appendix D of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

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 facility is a new major source and this project does constitute a Title I modification, therefore this requirement is applicable. Corporation Vintage's compliance certification is included in Appendix E.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install two VDDs

Since the project will provide VOC destruction 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 2410 Prevention of Significant Deterioration

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

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."

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

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 VDDs.

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 VDD operations.

Rule 4101 Visible Emissions

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

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

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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

RMR Summary				
Categories	VOC Destruction Device (Unit 496-0)	VOC Destruction Device (Unit 497-0)	Project Totals	Facility Totals
Prioritization Score	0.25	0.25	0.51	>1
Acute Hazard Index	0.01	0.01	0.02	0.84
Chronic Hazard Index	0.00	0.00	0.00	0.20
Maximum Individual Cancer Risk (10^{-6})	0.24	0.24	0.49	9.75
T-BACT Required?	No	No		
Special Permit Conditions?	Yes	Yes		

Discussion of T-BACT

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

Rule 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.

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F
 PM₁₀ Emission Factor: 0.005 lb-PM₁₀/MMBtu
 Percentage of PM as PM₁₀ in Exhaust: 100%
 Exhaust Oxygen (O₂) Concentration: 3%

$$\text{Excess Air Correction to F Factor} = \frac{20.9}{(20.9 - 3)} = 1.17$$

$$GL = \left(\frac{0.008 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left(\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.006 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Therefore, compliance with the requirements of this rule is expected.

Rule 4311 Flares

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

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

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

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes. Using the ideal gas equation the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{nRT}{P}$$

With:

N = moles SO₂

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$

$$\frac{0.0014 \text{ lb-SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.0 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 1.0 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with the requirements of this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

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 F) 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 § 15301 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs S-1738-496-0 and '497-0 subject to the permit conditions on the attached draft ATCs in **Appendix G**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1738-496-0	3020-02-H	75.7 MMBtu/hr	\$1030
S-1738-497-0	3020-10-F	75.7 MMBtu/hr	\$1030

Appendixes

- A. Quarterly Net Emissions Change
- B. Process Flow Diagram
- C. BACT Guideline and BACT Analysis
- D. HRA and AAQA
- E. Compliance Certification
- F. BPS Analysis
- G. Draft ATCs

APPENDIX A
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] S-1738-496-0					
	PE2 (lb/yr)	PE2 (lb/qtr)	PE1 (lb/yr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	7,095	1,774	0	0	1,774
SO _x	432	108	0	0	108
PM ₁₀	2,468	617	0	0	617
CO	2,468	617	0	0	617
VOC	1,234	309	0	0	309

Permit #: S-1738-496-0	Last Updated
Facility: VINTAGE PRODUCTION CALIFORNIA	09/01/2014 TORID

Equipment Pre-Baselined: NO

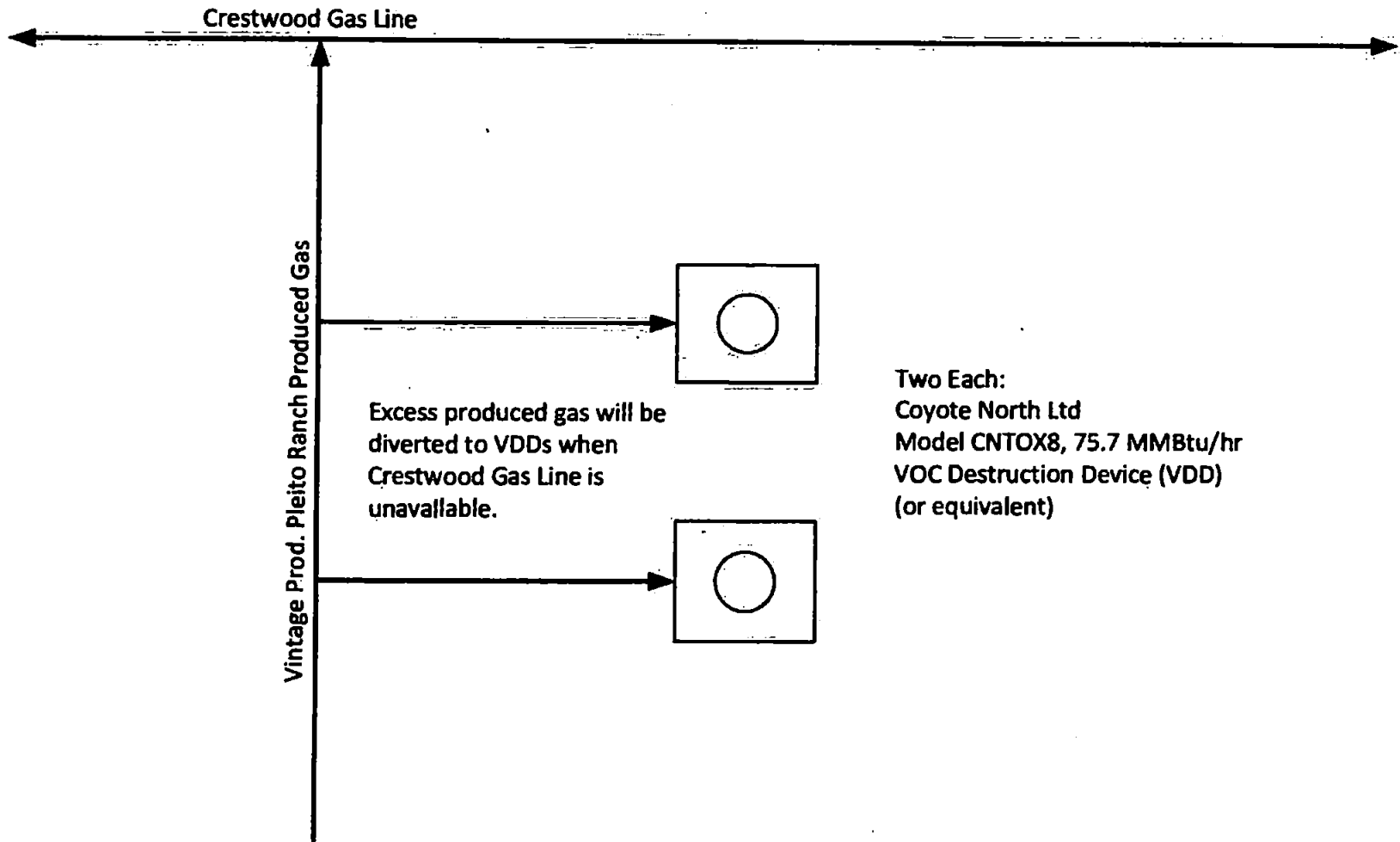
	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	7097.0	432.0	2468.0	2468.0	1234.0
Daily Emis. Limit (lb/Day)	41.8	2.5	14.5	14.5	7.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1774.0	108.0	617.0	617.0	309.0
Q2:	1774.0	108.0	617.0	617.0	309.0
Q3:	1774.0	108.0	617.0	617.0	309.0
Q4:	1774.0	108.0	617.0	617.0	309.0
Check if offsets are triggered but exemption applies	N	N	N	Y	N
Offset Ratio	1.5	1.5	1.5		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	2661.0	162.0	925.0		463.0
Q2:	2661.0	162.0	925.0		463.0
Q3:	2661.0	162.0	925.0		463.0
Q4:	2661.0	162.0	925.0		463.0

Permit #: S-1738-497-0	Last Updated
Facility: VINTAGE PRODUCTION/CALIFORNIA	09/01/2014 TORID

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	7097.0	432.0	2468.0	2468.0	1234.0
Daily Emis. Limit (lb/Day)	41.8	2.5	14.5	14.5	7.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1774.0	108.0	617.0	617.0	309.0
Q2:	1774.0	108.0	617.0	617.0	309.0
Q3:	1774.0	108.0	617.0	617.0	309.0
Q4:	1774.0	108.0	617.0	617.0	309.0
Check if offsets are triggered but exemption applies	N	N	N	Y	N
Offset Ratio	1.5	1.5	1.5		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	2661.0	162.0	925.0		463.0
Q2:	2661.0	162.0	925.0		463.0
Q3:	2661.0	162.0	925.0		463.0
Q4:	2661.0	162.0	925.0		463.0

APPENDIX B
Process Flow Diagram



Vintage Production California, LLC
Application For Authorities To Construct For Two VOC Destruction Devices (VDDs)

PROCOSS FLOW DIAGRAM

Project Location NE/4 Section 36 T11N/R21W Date: 06/2014

Appendix C
BACT Guideline and
Top-down BACT Analysis

**Best Available Control Technology (BACT) Guideline 1.4.1
Last Update: 11/9/1995**

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

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

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

Top Down BACT Analysis

1. BACT Analysis for NO_x and CO Emissions:

a. Step 1 - Identify all control technologies

1. Steam-assisted
2. Air assisted when steam unavailable
3. VDD (equivalent to the above options)

b. Step 2 - Eliminate technologically infeasible options

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

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

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

BACT Analysis for PM₁₀ Emissions:

a. Step 1 - Identify all control technologies

1. Steam-assisted with smokeless combustion
2. Air-assisted with smokeless combustion when steam unavailable.
3. Pilot Light Fired Solely on LPG or Natural Gas
4. VDD (equivalent to the above options)

b. Step 2 - Eliminate technologically infeasible options

The VDD does not have a pilot light.

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

c. Step 3 - Rank remaining options by control effectiveness

The remaining control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

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

3. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

1. Steam-assist
2. Air-assist when steam unavailable.
3. VDD

b. Step 2 - Eliminate technologically infeasible options

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

c. Step 3 - Rank remaining options by control effectiveness

All of the control technologies have the same control effectiveness

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

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

Appendix D
HRA and AAQA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: David Torii – Permit Services
From: Yu Vu – Technical Services
Date: September 23, 2014
Facility Name: Vintage Production California, LLC
Location: LOW (Pleito Lease)
Application #(s): S-1738-496-0 and -497-0
Project #: S-1143395

A. RMR SUMMARY

RMR Summary				
Categories	VOC Destruction Device (Unit 496-0)	VOC Destruction Device (Unit 497-0)	Project Totals	Facility Totals
Prioritization Score	0.25	0.25	0.51	>1
Acute Hazard Index	0.01	0.01	0.02	0.84
Chronic Hazard Index	0.00	0.00	0.00	0.20
Maximum Individual Cancer Risk (10⁻⁶)	0.24	0.24	0.49	9.75
T-BACT Required?	No	No		
Special Permit Conditions?	Yes	Yes		

Proposed Permit Conditions

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

Unit # 496-0 and 497-0

1. This unit may only operate within the Pleito lease of Vintage's Light Oil Western stationary source. [District Rules 2201]
2. This unit may not operate within 350 meters (1,148 feet) of the facility boundary. [District Rules 2201]
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

B. RMR REPORT

I. Project Description

Technical Services received a request on August 25, 2014, to perform a Risk Management Review and Ambient Air Quality Analysis for a proposed installation of a two VOC destruction devices equipped with 75.7 MMBtu/hr burners (fired on natural gas).

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 District approved emission factors for natural/waste gas flares 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.

Both VOC destruction devices were modeled as a single point source in order to simulate both of them operating in the same location, at the same time, as a worst-case scenario. The applicant wanted to operate each of the units involved in this project at various unspecified locations within their Pleito lease. Because of this, multiple point source stacks were placed throughout the facility in an attempt to find the receptor where the worst-case impacts would occur. A worst-case receptor was found for each of the Cancer, Chronic, and Acute scores and their respective scores were determined at those receptors.

The 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 496-0 and 497-0			
Source Type	Point	Location Type	Rural
Stack Height (m)	12.192	Closest Receptor (m)	~5,100
Stack Diameter (m)	1.722	Type of Receptor	Business
Stack Exit Velocity (m/s)	1.097	Max Hours per Year	8,760
Stack Exit Temp. (°K)	1283.15	Fuel Type	NG/Waste Gas
Burner Rating (MMBtu/hr)	75.7		

*The Wheeler Ridge modeling domain (run) was used to model this project. Please see the PLEASE READ BEFORE PROCESSING NEW PROJECTS document in the main project folder of facility S-382 for more information on the modeling domain used here.

Technical Services performed modeling for criteria pollutants CO, NOx, SOx and PM_{10/2.5}. The emission rates used for criteria pollutant modeling were (for both units combined) 1.2 lb/hr CO, 3.4 lb/hr NOx, 0.2 lb/hr SOx, and 1.2 lb/hr PM_{10/2.5}.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

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

*Results were taken from the attached PSD spreadsheet.

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

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

III. Conclusion

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

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

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

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

Appendix E
Compliance Certification

CERTIFICATION

Vintage Production California, LLC (VPC) hereby certifies as follows:

1. VPC owns or operates certain major stationary sources in the State of California. Such sources are comprised of a vast number of emission points. As used in this certification, the term "major stationary source" shall, with respect to VPC stationary sources in the SJVUAPCD, have the meaning ascribed thereto in SJVUAPCD Rule 2201, Section 3.23, and shall, with respect to all of VPC's other stationary sources in the State of California, have the meaning ascribed thereto in section 302(J) of the Clean Air Act (42 U.S.C. Section 7602 (J)).

2. Subject to paragraphs 3 and 4 below, all major stationary sources owned or operated by VPC in the State of California are either in compliance, or on an approved schedule of compliance, with all applicable emission limitations and standards under the Clean Air Act and all of the State Implementation Plan approved by the Environmental Protection Agency.

3. This certification is made on information and belief and is based upon a review of VPC major stationary sources in the State of California by those employees of VPC who have operational responsibility for compliance. In conducting such reviews, VPC and its employees have acted in good faith and have exercised best efforts to identify any exceedance of the emission limitations and standards referred to in paragraph 2 thereof.

4. This certification shall speak as of the time and date of its execution.

CERTIFICATION

By: Denny Brown Date: 8/22/14

Title: Operations Manager Time: 5:00 PM

Appendix F
BPS Analysis

**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	

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 will be incinerated in a new VDD with >98% TOC destruction efficiency; therefore, the project meets the BPS from 2) above. The District-approved BPS is attached for reference.

Appendix G
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1738-496-0

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY
CA

SECTION: 36 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:
UP TO 75.7 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX8 VOC DESTRUCTION DEVICE (OR EQUIVALENT)

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 quantity of emissions: 1st quarter - 2,661 lb, 2nd quarter - 2,661 lb, 3rd quarter - 2,661 lb, and fourth quarter - 2,661 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8. (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number C-1289-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Arnaud Marjollet, Director of Permit Services

S-1738-496-0; Oct 1 2014 @ 5:56AM - TCRID - Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 1,087 lb, 2nd quarter - 1,087 lb, 3rd quarter - 1,087 lb, and fourth quarter - 1,087 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number C-1293-5 (or a certificate split from this certificate) shall be used to supply the required SOx and 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 quantity of emissions: 1st quarter - 463 lb, 2nd quarter - 463 lb, 3rd quarter - 463 lb, and fourth quarter - 463 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
8. ERC Certificate Numbers S-4300-1 (or a certificate split from these certificates) 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. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment. [District Rule 2010] Federally Enforceable Through Title V Permit
10. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit
11. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
13. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
14. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
15. The VDD shall be equipped with an automatic ignition system [District Rule 2201] Federally Enforceable Through Title V Permit
16. Total operating hours shall not exceed 4,075 hours/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VDD shall be designed for and operated with no visible emissions except for periods not to exceed a total of three (3) minutes in any one (1) hour. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
18. The VDD shall be inspected quarterly during operation for visible emissions, using EPA Method 22. If visible emissions are observed, corrective action shall be taken. If visible emissions cannot be eliminated, an EPA Method 9 test shall be conducted within 24 hours. [2520, 9.3.2] Federally Enforceable Through Title V Permit
19. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

20. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO_x/MMBtu; 0.0014 lb-SO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Gas sulfur content and higher heating value shall be measured quarterly using gas chromatographic analysis to calculate SO_x emission rate. Test reports of measured fuel sulfur content and higher heating value shall be maintained. The calculated SO_x emission rate shall be recorded in format approved by the District. If compliance with the SO_x emission rate has been demonstrated for 8 consecutive quarters for a fuel source, then the testing frequency shall be annually. If an annual fuel sulfur content and higher heating value testing fails to show compliance, quarterly testing shall resume [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall keep accurate daily records of volume of gas combusted and hours of operation for a period of five years, and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1738-497-0

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

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY
CA

SECTION: 36 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

UP TO 75.7 MMBTU/HR COYOTE NORTH LTD MODEL CNTOX8 VOC DESTRUCTION DEVICE (OR EQUIVALENT)

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 quantity of emissions: 1st quarter - 2,661 lb, 2nd quarter - 2,661 lb, 3rd quarter - 2,661 lb, and fourth quarter - 2,661 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number C-1289-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director, APCO

DRAFT

Arnaud Marjolle, Director of Permit Services
S-1738-497-0, Oct 1 2014, 8:55AM - TORID - Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 1,087 lb, 2nd quarter - 1,087 lb, 3rd quarter - 1,087 lb, and fourth quarter - 1,087 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number C-1293-5 (or a certificate split from this certificate) shall be used to supply the required SOx and 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 quantity of emissions: 1st quarter - 463 lb, 2nd quarter - 463 lb, 3rd quarter - 463 lb, and fourth quarter - 463 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
8. ERC Certificate Numbers S-4300-1 (or a certificate split from these certificates) 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. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment. [District Rule 2010] Federally Enforceable Through Title V Permit
10. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit
11. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
13. A flame shall be present at all times when combustible gases are vented. [District Rule 2201] Federally Enforceable Through Title V Permit
14. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
15. The VDD shall be equipped with an automatic ignition system [District Rule 2201] Federally Enforceable Through Title V Permit
16. Total operating hours shall not exceed 4,075 hours/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VDD shall be designed for and operated with no visible emissions except for periods not to exceed a total of three (3) minutes in any one (1) hour. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
18. The VDD shall be inspected quarterly during operation for visible emissions, using EPA Method 22. If visible emissions are observed, corrective action shall be taken. If visible emissions cannot be eliminated, an EPA Method 9 test shall be conducted within 24 hours. [2520, 9.3.2] Federally Enforceable Through Title V Permit
19. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

20. Emission rates from this unit shall not exceed any of the following limits: 0.023 lb-NO_x/MMBtu; 0.0014 lb-SO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.008 lb-CO/MMBtu; or 0.004 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Gas sulfur content and higher heating value shall be measured quarterly using gas chromatographic analysis to calculate SO_x emission rate. Test reports of measured fuel sulfur content and higher heating value shall be maintained. The calculated SO_x emission rate shall be recorded in format approved by the District. If compliance with the SO_x emission rate has been demonstrated for 8 consecutive quarters for a fuel source, then the testing frequency shall be annually. If an annual fuel sulfur content and higher heating value testing fails to show compliance, quarterly testing shall resume [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall keep accurate daily records of volume of gas combusted and hours of operation for a period of five years, and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT