



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



FEB 0 1 2016

Mr. Raymond Rodriguez
California Resources Elk Hills, LLC
PO Box 1001
Tupman, CA 93276

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-382
Project # 1150872**

Dear Mr. Rodriguez:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The application is for a flare modification.

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

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

Thank you for your cooperation in this matter.

Sincerely,


Arnaud Marjollet
Director of Permit Services

AM: dt/ya

Enclosures

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

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

Facility Name: California Resources Elk Hills, LLC Date: ~~8/12/15~~ 11/19/16
Mailing Address: PO Box 1001 Engineer: David Torii
 Tupman, CA 93276 Lead Engineer: Rich Karrs
Contact Person: Raymond Rodriguez
 Telephone: 661-763-6159
Application #(s): S-382-74-4
 Project #: 1150872
Deemed Complete: 6/17/15

I. Proposal

California Resources Elk Hills, LLC (CRE) has requested an Authority to Construct (ATC) permit to authorize the non-emergency operation of flare S-382-74. Currently, the flare is only authorized to combust vent gas during emergency events. This project will allow for the flare to combust vent gas during non-emergency events.

CRE received their Title V Permit on 5/31/01. This modification can be classified as a Title V significant 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. CRE 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 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 is located in section 35, T30S, R23E in CRE'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 flare receives vapors from the 35R and HPI gas plants.

V. Equipment Listing

Pre-Project Equipment Description (see PTO in Appendix A):

S-382-74-3: 535.5 MMBTU/HR EMERGENCY FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP

Proposed ATCs:

S-382-74-4: MODIFICATION OF 535.5 MMBTU/HR EMERGENCY FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP: AUTHORIZE FLARE FOR NON-EMERGENCY SERVICE

Post Project Equipment Description:

S-382-74: 535.5 MMBTU/HR AIR ASSISTED FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP

VI. Emission Control Technology Evaluation

The flare has an air-assisted tip which uses large amounts of air in order to increase turbulent mixing and promote complete combustion of hydrocarbons. This reduces NOx emissions and smoke/particulate matter (PM10) which are caused by high temperatures and incomplete combustion.

The VOC combustion efficiency for flares is typically greater than 99%. The gas combusted in the flare is expected to have a very low sulfur content (1.0 gr S/100 scf maximum) as proposed by the applicant.

VII. General Calculations

A. Assumptions

Proposed heat input limit is 10,300 MMBtu/day and 185,400 MMBtu/year
 Sulfur content limit of flared gas is 1 grain-S/100 scf (16.9 ppmv H₂S)
 Emissions from the pilots serving the flares are greater than 2 lbs/day and are therefore subject to NSR (pursuant to FYI 310).
 Pilot volume limit is 50 MMBtu/day and 18,000 MMBtu/yr (applicant).

B. Emission Factors

Flare		
Pollutant	lb/MMBtu	Source
NOx	0.068	FYI 83
SOx	0.00285	
PM10	0.008	
CO	0.370	
VOC	0.063	

Pilot		
Pollutant	lb/MMBtu	Source
NOx	0.094	AP 42, 1.4 Per FYI 310
SOx	0.00285	
PM10	0.0076	
CO	0.04	
VOC	0.0055	

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The flare is currently permitted as emergency-use-only equipment; therefore, its emissions are assumed to be zero for NSR purposes.

2. Post Project Potential to Emit (PE2)

The potential to emit is calculated as follows, and summarized in the table below:

$$\begin{aligned} \text{PE2}_{\text{NOx(vent gas)}} &= (0.068 \text{ lb/MMBtu})(10,300 \text{ MMBtu/day}) \\ &= 400.4 \text{ lb NO}_x/\text{day} \\ &= (0.068 \text{ lb/MMBtu})(185,400 \text{ MMBtu/yr}) \\ &= 12,623 \text{ lb NO}_x/\text{yr} \end{aligned}$$

$$\begin{aligned} \text{PE2}_{\text{NOx(pilot)}} &= (0.094 \text{ lb/MMBtu})(50 \text{ MMBtu/day}) \\ &= 4.7 \text{ lb NO}_x/\text{day} \\ &= (0.094 \text{ lb/MMBtu})(18,000 \text{ MMBtu/yr}) \\ &= 1,692 \text{ lb NO}_x/\text{yr} \end{aligned}$$

Vent Gas PE2		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	700.4	12,607
SO _x	29.4	528
PM ₁₀	82.4	1,483
CO	3811	68,598
VOC	648.9	11,680

Pilot PE2		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	4.7	1692
SO _x	0.1	51
PM ₁₀	0.4	137
CO	2.0	720
VOC	0.3	99

Vent Gas Plus Pilot PE2 (lb/day)			
	Vent Gas	Pilot	Total
NO _x	700.4	4.7	705.1
SO _x	29.4	0.1	29.5
PM ₁₀	82.4	0.4	82.8
CO	3,811.0	2.0	3,813.0
VOC	648.9	0.3	649.2

Vent Gas Plus Pilot PE2 (lb/year)			
	Vent Gas	Pilot	Total
NO _x	12,607	1692	14,299
SO _x	528	51	579
PM ₁₀	1,483	137	1,620
CO	68,598	720	69,318
VOC	11,680	99	11,779

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.

SSPE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	463,031	26,372	52,551	4,934,055	1,022,832

See emission calculations in Appendix B

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.

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	463,031	26,372	52,551	4,934,055	1,022,832
S-382-74-4	14,299	579	1,620	69,318	11,779
SSPE2	477,330	26,951	54,171	5,003,373	1,034,611

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

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	463,031	26,372	52,551	52,551	4,934,055	1,022,832
SSPE2	477,330	26,951	54,171	54,171	5,003,373	1,034,611
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	y	n	n	n	y	y

This source is an existing Major Source for NO_x, CO and VOC 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)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
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 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.

The flares are currently permitted as emergency-use only equipment; therefore, BE1 = 0.

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	14,299	50,000	N
SO _x	579	80,000	N
PM ₁₀	1,620	30,000	N
VOC	11,779	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

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

Step 1

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

Since all emissions units in this project are currently permitted as emergency-use only equipment, BAE = 0, PAE is assumed to be PE2.

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	14,299	0	Y
VOC	11,779	0	Y
PM ₁₀	1,620	30,000	N
PM _{2.5}	1,620	20,000	N
SO _x	11,779	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

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	0.3	34.7	0.8	0.8
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.

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 discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

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

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

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

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

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

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

The flare is currently permitted as emergency-use-only equipment; therefore, its PE1 is assumed to be zero for NSR purposes.

EF1 = EF2, therefore, AIPE = PE2

AIPE (lb/day)			
	Vent Gas	Pilot	Total (AIPE)
NO _x	700.4	4.7	705.1
SO _x	29.4	0.1	29.5
PM ₁₀	82.4	0.4	82.8
CO	3,811.0	2.0	3,813.0
VOC	648.9	0.3	649.2

As demonstrated above, the AIPE is greater than 2.0 lb/day for all pollutants. Therefore BACT is triggered for all pollutants.

2. BACT Guideline

BACT Guideline 1.4.2, applies to the flare. [Waste Gas Flare - 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 C), BACT has been satisfied with the following:

NO_x: Air-assisted

SO_x: Air-assisted flare, flared gas sulfur content not exceeding 1 gr S/100 scf and pilot light fired only on natural gas

PM₁₀: Air-assisted burner with natural gas fired pilot light.

CO: Air-assisted

VOC: Air-assisted

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	477,330	26,951	54,171	5,003,373	1,034,611
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	y	n	y	y	y

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for all pollutants. Therefore offset calculations will be required for this project.

Pursuant to section 4.6.1 for Rule 2201 increases in carbon monoxide in attainment areas are exempt from offsetting if the applicant demonstrates to the satisfaction of the APCO, that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards. As shown below in section VII.F Ambient Air Quality Standards are not violated; therefore, offsets are not required for CO.

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.

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 shown above in VII.C.6, BE = 0 and there are no increases in cargo carrier emissions; therefore, offsets can be determined as follows:

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

NO_x:

$$PE2 (NO_x) = 14,299 \text{ lb/year}$$

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

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

$$\begin{aligned} \text{Offsets Required (lb/year)} &= (14,299) \times 1.5 \\ &= 21,449 \text{ lb NO}_x/\text{year} \end{aligned}$$

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

$$\begin{aligned} \text{Quarterly offsets required (lb/qtr)} &= (21,449 \text{ lb NO}_x/\text{year}) \div (4 \text{ quarters/year}) \\ &= 5,362.25 \text{ lb/qtr} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets				
(where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
5,362	5,362	5,362	5,363

The applicant has stated that the facility plans to use ERC certificate S-XXXX-2 to offset the increases in NO_x emissions associated with this project. The above certificate has available quarterly NO_x credits as follows:

ERC #	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
S-4211-2	0	0	51	0
S-4390-2	2078	2194	4959	5363
S-4468-2	3284	3168	352	0

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

Proposed Rule 2201 (offset) Conditions:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits for the following quantity of emissions: 1st quarter - 5362 lb, 2nd quarter - 5362 lb, 3rd quarter - 5362 lb, and fourth quarter - 5363 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-4211-2, S-4390-2 and S-4468-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

PM10:

$$PE2 = 1,620 \text{ lb/year}$$

The approved distance offset ratio is 1:1.5 because the emission reduction originated greater than 15 miles for the proposed unit.

$$\begin{aligned} \text{PM10 Offsets Required (lb/year)} &= 1,620 \times 1.5 \\ &= 2,430 \text{ lb/year} \end{aligned}$$

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

$$\begin{aligned} \text{Quarterly offsets required (lb/qtr)} &= (2,430 \text{ lb/year}) \div (4 \text{ quarters/year}) \\ &= 607.5 \text{ lb/qtr} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets

being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
607	607	608	608

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.

The applicant has stated that the facility plans to use SO_x ERC certificates N-1280-5 and S-3823-5 to offset the increases in PM₁₀ emissions associated with this project. The above certificate has available quarterly SO_x credits as follows:

ERC #	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
N-1280-5	342	334	334	334
S-3823-5	265	273	274	274

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

Proposed Rule 2201 (offset) Conditions:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits for the following quantity of PM₁₀ emissions: 1st quarter –607 lb, 2nd quarter – 607 lb, 3rd quarter – 608 lb, and fourth quarter – 608 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 N-1280-5 and S-3823-5 (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]

VOC:

$$PE2 (VOC) = 11,779 \text{ lb/year}$$

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

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

$$\begin{aligned} \text{Offsets Required (lb/year)} &= (11,779) \times 1.5 \\ &= 17,669 \text{ lb VOC/year} \end{aligned}$$

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

$$\begin{aligned} \text{Quarterly offsets required (lb/qtr)} &= (17,669 \text{ lb VOC/year}) \div (4 \text{ quarters/year}) \\ &= 4,417.25 \text{ lb/qtr} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets				
(where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
4,417	4,417	4,417	4,418

The applicant has stated that the facility plans to use ERC certificate S-4211-1 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-4211-1	10,584	10,957	14,277	13,713

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:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 4417 lb, 2nd quarter – 4417 lb, 3rd quarter – 4417 lb, and fourth quarter – 4418 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 S-4211-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

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 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	SSPE2	Offset Threshold	Public Notice Required?
NO _x	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	No
SO _x	26,382 lb/year	26,951 lb/year	54,750 lb/year	No
PM ₁₀	>29,200 lb/year	>29,200 lb/year	29,200 lb/year	No
CO	>200,000 lb/year	>200,000 lb/year	200,000 lb/year	No
VOC	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds			
Pollutant	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	14,299	20,000 lb/year	No
SO _x	579	20,000 lb/year	No
PM ₁₀	1,620	20,000 lb/year	No
CO	69,318	20,000 lb/year	Yes
VOC	11,779	20,000 lb/year	No

As demonstrated above, the SSIPE for CO is greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is 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 triggering a Federal Major Modification and for having a CO increase greater than 20,000/yr. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

Vent gas emission rates from this unit shall not exceed any of the following limits: NO_x - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM₁₀ - 0.008 lb/MMBtu; or SO_x - 0.00285 lb/MMBtu. [District Rule 2201] Y

Pilot emission rates from this unit shall not exceed any of the following limits: NO_x - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM₁₀ - 0.076 lb/MMBtu; or SO_x - 0.00285 lb/MMBtu. [District Rule 2201] Y

Vent gas heat input shall not exceed 10,300 MMBtu/day nor 185,400 MMBtu/year. [District Rule 2201] Y

Pilot gas heat input shall not exceed 50 MMBtu/day or 18,000 MMBtu/year. [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 maintain, and make available for District inspection, all records of required monitoring data and support information for the flare for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and District Rule 4311, 6.1] 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. CRE's compliance certification is included in Appendix E.

H. Alternate Siting Analysis

The current project occurs at an existing facility. Since the project will provide gas incineration 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."

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. This project triggers a Federal Major Modification which is not a modification as given in Section 111 or Section 112 of the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V 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 flares.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). The flares are currently in compliance with the requirements of this rule and replacing the proposed modification is not expected to affect compliance; 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 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	Flare (Unit 74-4)	Project Totals	Facility Totals
Prioritization Score	44.1	44.1	>1.0
Acute Hazard Index	0.01	0.01	0.84
Chronic Hazard Index	0.00	0.00	0.03
Maximum Individual Cancer Risk (10⁻⁶)	0.05	0.05	19.90
T-BACT Required?	No		
Special Permit Conditions?	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. The flares are currently in compliance with the requirements of this rule and replacing the proposed modification is not expected to affect compliance; continued compliance is expected

Rule 4311 Flares

Rule 4311 applies to all operations involving the use of flares. The purpose of the Rule is to limit VOCs, NOx and SOx emissions from the operation of flares.

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

These are not an emergency flares, therefore they are subject to sections 5.6. and 5.7.

Section 5.2 states that a flame shall be present at all times when combustible gases are vented through a flare. The following condition will be placed on the permit:

*The flame shall be present at all times when combustible gases are vented through the flare.
[District Rule 4311]*

Section 5.3 states that the flare 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 following condition will be placed on the permit:

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] Y

Section 5.4 states that 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 following condition will be placed on the permit:

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] Y

Section 5.5 states that flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. The following condition will be placed on the permit:

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] Y

Section 5.6 states that 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 following condition will be placed on the permit:

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. [District Rule 4311, 5.6] Y

Section 5.7 states that ground-level enclosed flares meet the defined emission standards.

The flares are not a ground-level enclosed flare and are not subject to the defined emission standards. Continued compliance with Section 5.7 is expected.

Section 5.8 states that 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. Subsection 6.5.1 states that by July 1, 2010, 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.

A flare minimization plan addressing the requirements of section 6.5 has been submitted for this project.

Section 5.9 sites Petroleum Refinery SO₂ Performance Targets. The flares do not serve a petroleum refinery.

Section 5.10 states that 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.

Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Y

Section 5.11 states that 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.

Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311, 6.3.4] Y

If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311, 6.3.4] Y

Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311, 6.3.5] Y

The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period

until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311, 6.6] Y

Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Y

The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311, 6.8] Y

The flares comply with all applicable sections of Rule 4311 including recordkeeping and administrative requirements.

Rule 4801 Sulfur Compounds

The rule limits sulfur compound emission (as SO_x) concentrations to no more than 2000 ppmv, measured at the point of discharge. The flares are currently in compliance with the requirements of this rule and replacing the proposed modification is not expected to affect compliance; continued compliance is expected

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

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

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

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

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

Industries covered by Cap-and-Trade are identified in the regulation under section 95811, Covered Entities:

1. Group 1: Large industrial facilities

These types of facilities are subject to Cap and Trade, and the specific companies covered are listed at <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>, Section 95811 (a), under the "Publically Available Market Information" section (list maintained by the California Air Resources Board).

2. Group 2: Electricity generation facilities located in California, or electricity importers

These types of facilities are subject to Cap and Trade (section 95811, b).

3. Group 3: Suppliers of Natural Gas, Suppliers of Reformulated Gasoline Blendstock for Oxygenate Blending and Distillate Fuel Oil, Suppliers of Liquefied Petroleum Gas, and Suppliers of Blended Fuels

These entities are subject to Cap and Trade compliance obligations which must cover all fuels (except jet fuels) identified in section 95811 (c) through (f) of the Cap-and-Trade regulation delivered to end users in California, less the fuel delivered to covered entities (group 1 above).

This facility is subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

The District determined that no other agency has broader discretionary approval power over the project and that the District is the first agency to act on the project, therefore establishing the District as the Lead Agency for the project (CEQA Guidelines §15051(b)). An Initial Study was prepared, which identified impact on air quality as the project's potential significant environmental effect.

The District's engineering evaluation of the project (this document) and the Initial Study demonstrates that compliance with District rules and permit conditions and Project design elements would reduce and mitigate the project's potential environmental impacts to less than significant with mitigation incorporated. Consistent with CEQA Guidelines §15070, a Proposed Mitigated Negative Declaration was prepared and released for public review from January 5, 2016 to February 6, 2016.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Issue ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 subject to the permit conditions on the attached draft ATC in **Appendix F**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-382-74-4	3020-02 H	535.5 MM BTU/HR	\$1080

Appendixes

- A: Current PTO
- B: SSPE1 Calculations
- C: BACT Guideline and BACT Analysis
- D: HRA/AAQA Summary
- E: Compliance Certification
- F: Draft ATC

APPENDIX A
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-382-74-3

EXPIRATION DATE: 10/31/2016

SECTION: 35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

535.5 MMBTU/HR EMERGENCY FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP

PERMIT UNIT REQUIREMENTS

1. Operation shall include gas riser, flare pilot, 20 hp (minimum) primary combustion air blower, 112 hp (minimum) secondary combustion air blower, and main air inlet nozzle and air duct. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Primary combustion air fan shall be capable of delivering at least 20,000 cfm @ 5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Secondary combustion air fan shall be capable of delivering at least 100,000 cfm @ 4.5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Flare shall incinerate gases from HPI and 35R gas plant facility only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Amount of gas flared shall not exceed 34,722 dscf/min. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Other than the planned flaring limited in the condition above, this flare shall be operated solely for emergency situations, which are any situations or conditions arising from a sudden and reasonably unforeseen and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
8. 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
9. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. 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
11. 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
12. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), 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 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311, 5.8] Federally Enforceable Through Title V Permit
13. The operator shall monitor the vent gas flow to the flare with a flow measuring device. [District Rule 4311, 5.10] Federally Enforceable Through Title V Permit
14. Effective on and after July 1, 2012, and annually thereafter, 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 Rule 4311 Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit
15. 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 as specified in Rule 4311 Section 6.2.3 within 30 days following the end of each 12 month period. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit
16. Pursuant to Rule 4311 Section 6.6, the operator shall monitor vent gas composition using one the methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit
17. The operator shall monitor the volumetric flows of purge and pilot gases with flow measuring devices. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit
18. If the flare is equipped with a water seal, the operator shall monitor and record the water level and pressure of the water seal that services each flare daily. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit
19. Periods of flare monitoring system in operation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
20. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
21. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
22. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 6.9] 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.

23. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. The operator shall test the sulfur content of the gases being flared and demonstrate the sulfur content does not exceed 3.3% by weight. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If a semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. The sulfur content of the gas being flared shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The fuel higher heating value for the gases being flared shall be certified by third party fuel supplier or determined by ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. This flare shall not be used as a leak control device as described in Rule 4409, 5.3.5 (adopted April 20, 2005), nor as a control device for any permit unit subject to NSPS, without modification of permit requirements to address 40 CFR 60.18. [District Rule 2520, 9.4.3] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of the duration of flare operation, amount of gas flared, the nature of the emergency situation and any corrective action take to rectify the process upset or breakdown that necessitated the use of the flare. [District Rules 2520, 9.3.2 and 4311, 6.1] Federally Enforceable Through Title V Permit
29. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for the flare for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

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

APPENDIX B
SSPE1 Calculations

Detailed SSPE Report

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	382	0	3						0
S	382	7	9						0
S	382	29	4	0	0	0	0	2220	0
S	382	32	14	89615	3650	8497	386228	231790	0
S	382	62	14	89615	3650	8497	386228	231790	0
S	382	63	14	89615	3650	8497	386228	231790	0
S	382	68	9	0	0	0	0	6468	0
S	382	69	5						0
S	382	70	11	0	0	0	0	723	0
S	382	71	7						0
S	382	74	3						0
S	382	80	11	0	0	0	0	190	0
S	382	81	11	0	0	0	0	116	0
S	382	82	11	0	0	0	0	138	0
S	382	84	10	0	0	0	0		0
S	382	87	12	0	0	0	0	280	0
S	382	89	11	0	0	0	0	190	0
S	382	90	10	0	0	0	0	157	0
S	382	91	9	0	0	0	0	33	0
S	382	93	11	0	0	0	0	262	0
S	382	94	9	0	0	0	0	116	0
S	382	95	7	0	0	0	0	177	0
S	382	96	12	0	0	0	0	116	0
S	382	100	10	0	0	0	0	277	0
S	382	110	14	0	0	0	0	223	0
S	382	111	9	0	0	0	0	36	0

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Notes:

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For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

<i>Region</i>	<i>Facility</i>	<i>Unit Mod</i>		<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding ATCs</i>
S	382	112	7	0	0	0	0	116	0
S	382	113	9	0	0	0	0	355	0
S	382	116	11	0	0	0	0	234	0
S	382	124	25	0	0	0	0	876	1
S	382	131	13	0	0	0	0	131	0
S	382	132	15	0	0	0	0	116	0
S	382	136	19	0	0	0	0	1022	1
S	382	138	7	0	0	0	0	277	0
S	382	139	11	0	0	0	0	628	0
S	382	140	11	0	0	0	0	365	0
S	382	156	5						1
S	382	157	5						1
S	382	158	17	0	0	0	0	4271	0
S	382	159	9	0	0	0	0	444	0
S	382	161	15	0	0	0	0	836	0
S	382	162	13	0	0	0	0	51	0
S	382	163	11	0	0	0	0	69	1
S	382	177	7	0	0	0	0	66	0
S	382	178	7	0	0	0	0	66	0
S	382	179	7	0	0	0	0	66	0
S	382	181	6						0
S	382	183	8	0	0	0	0	51	0
S	382	187	8	0	0	0	0	37	0
S	382	189	7	0	0	0	0	66	0
S	382	190	8	0	0	0	0	73	0
S	382	191	7	0	0	0	0	66	0
S	382	197	7	0	0	0	0	66	0
S	382	198	7	0	0	0	0	66	0
S	382	199	6	0	0	0	0	0	0

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Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	382	200	9	0	0	0	0	66	0
S	382	204	8	0	0	0	0	73	0
S	382	261	8	0	0	0	0	37	0
S	382	262	8	0	0	0	0	37	0
S	382	263	9	0	0	0	0	44	0
S	382	265	9	0	0	0	0	36	0
S	382	266	7	0	0	0	0	66	0
S	382	267	7	0	0	0	0	66	0
S	382	283	7	0	0	0	0	66	0
S	382	286	8	0	0	0	0	69	0
S	382	287	8	0	0	0	0	69	0
S	382	288	8	0	0	0	0	69	0
S	382	289	8	0	0	0	0	69	0
S	382	290	8	0	0	0	0	69	0
S	382	291	8	0	0	0	0	69	0
S	382	292	8	0	0	0	0	69	0
S	382	293	8	0	0	0	0	69	0
S	382	294	8	0	0	0	0	69	0
S	382	295	8	0	0	0	0	69	0
S	382	296	8	0	0	0	0	69	0
S	382	297	8	0	0	0	0	69	0
S	382	298	8	0	0	0	0	69	0
S	382	299	8	0	0	0	0	69	0
S	382	300	8	0	0	0	0	69	0
S	382	301	8	0	0	0	0	69	0
S	382	302	8	0	0	0	0	69	0
S	382	304	9	0	0	0	0	66	0
S	382	307	7	0	0	0	0	66	0
S	382	308	7	0	0	0	0	66	0

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Notes:

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ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	382	309	7	0	0	0	0	66	0
S	382	310	7	0	0	0	0	66	0
S	382	311	7	0	0	0	0	66	0
S	382	312	10	0	0	0	0	66	0
S	382	313	7	0	0	0	0	66	0
S	382	314	7	0	0	0	0	66	0
S	382	320	9	0	0	0	0	176	0
S	382	321	9	0	0	0	0	160	0
S	382	325	4						0
S	382	326	4	0	0	0	0	36	0
S	382	330	4						0
S	382	399	9	0	0	0	0	22	0
S	382	400	9	0	0	0	0	66	0
S	382	412	3						0
S	382	594	3						0
S	382	597	8	0	0	0	0	73	0
S	382	669	3						0
S	382	670	12	20236	18	1314	77263	29996	0
S	382	671	12	20236	18	1314	77263	29996	0
S	382	672	13	20236	18	1314	77263	29996	1
S	382	673	23	0	0	0	0	803	0
S	382	674	3						0
S	382	675	8	1080	64	228	1092	165	1
S	382	676	9	1080	64	228	1092	165	0
S	382	677	8	1080	86	228	1092	165	0
S	382	678	9	1080	86	228	1092	165	1
S	382	679	8	1080	86	228	1092	165	0
S	382	680	10	1080	86	228	1092	165	0
S	382	681	10	1080	86	228	1092	165	0

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Notes:

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ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

<i>Region</i>	<i>Facility</i>	<i>Unit</i>	<i>Mod</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding ATCs</i>
S	382	682	3						0
S	382	683	3						0
S	382	684	3					5548	0
S	382	685	3					2883	0
S	382	701	8	0	0	0	0	183	0
S	382	702	8	0	0	0	0	183	0
S	382	703	3	0	0	0	0	0	0
S	382	705	2	0	0	0	0	0	0
S	382	706	2	0	0	0	0	0	0
S	382	707	2	0	0	0	0	0	0
S	382	708	2	0	0	0	0	0	0
S	382	711	3	0	0	0	0	0	0
S	382	712	3	0	0	0	0	0	0
S	382	713	3	0	0	0	0	0	0
S	382	724	3	0	0	0	0	164	0
S	382	725	3	0	0	0	0	47	0
S	382	726	9	0	0	0	0	352	0
S	382	727	5	0	0	0	0	74	0
S	382	736	3	0	0	0	0	0	0
S	382	737	6	0	0	0	0	344	0
S	382	738	3	0	0	0	0	73	0
S	382	741	6	0	0	0	0	365	0
S	382	742	6	0	0	0	0	365	0
S	382	743	6	0	0	0	0	365	0
S	382	744	6	0	0	0	0	365	0
S	382	745	6	0	0	0	0	365	0
S	382	746	6	0	0	0	0	365	0
S	382	751	4	0	0	0	0	672	0
S	382	757	5	1314	37	110	1095	1278	0

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Notes:

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ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

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Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	382	758	5	0	0	0	0	1314	0
S	382	759	5	0	0	0	0	99	0
S	382	760	4	0	0	0	0	99	0
S	382	806	5	0	0	40	0	0	1
S	382	808	5	0	0	0	0	73	1
S	382	809	2	0	0	0	0	73	0
S	382	810	1	36	0	1	7	1	0
S	382	811	1	0	0	0	0	73	0
S	382	814	1	0	0	0	0	37	0
S	382	815	2	96	0	3	24	41	0
S	382	830	1	0	0	0	0	110	0
S	382	831	1	0	0	0	0	110	0
S	382	840	1	0	0	0	0	73	0
S	382	841	1	0	0	0	0	73	0
S	382	842	1	0	0	0	0	73	0
S	382	843	1	0	0	0	0	146	0
S	382	844	1	0	0	0	0	146	0
S	382	845	1	0	0	0	0	146	0
S	382	847	0	404	0	4	26	9	0
S	382	858	0	1784	202	476	12133	3093	0
S	382	859	0	1784	202	476	12133	3039	0
S	1216	0	1						0
S	1216	64	5	0	0	0	0	110	0
S	1216	66	1	0	0	0	0	33	0
S	1216	71	3	1998	314	571	13700	3498	0
S	1216	72	1	0	0	0	0	37	0
S	1216	73	1	0	0	0	0	37	0
S	1216	75	1	0	0	0	0	37	0
S	1216	78	1	0	0	0	0	37	0

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Notes:

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For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	1216	158	1	0	0	0	0	77	0
S	1216	159	1	0	0	0	0	77	0
S	1216	172	0	0	0	0	0	320	0
S	1216	174	0	0	0	0	0	283	0
S	1216	175	0	0	0	0	0	150	0
S	1216	176	0	0	0	0	0	173	0
S	1216	177	0	0	0	0	0	151	0
S	1738	0	4						0
S	1738	2	11	0	0	0	0	62	0
S	1738	7	16						0
S	1738	9	6						0
S	1738	10	6						0
S	1738	12	6						0
S	1738	13	6						0
S	1738	16	6						0
S	1738	17	6						0
S	1738	22	7						1
S	1738	23	5						0
S	1738	24	5						0
S	1738	26	5						0
S	1738	30	5						0
S	1738	31	5						0
S	1738	36	5	0	0	0	0	0	0
S	1738	37	10	0	0	0	0	0	1
S	1738	38	7						0
S	1738	44	6						0
S	1738	45	7	0	0	0	0	0	0
S	1738	47	7						0
S	1738	48	5						0

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<i>Region</i>	<i>Facility</i>	<i>Unit</i>	<i>Mod</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding ATCs</i>
S	1738	49	8						1
S	1738	50	6						0
S	1738	52	8						0
S	1738	53	6						0
S	1738	57	13	576	188	38	54812	2489	0
S	1738	58	14	635	221	635	59370	1366	0
S	1738	59	12	615	40	40	58446	1354	0
S	1738	60	11	1406			68288	1567	1
S	1738	62	12	1406			68288	1567	1
S	1738	77	8	0	0	0	0	0	0
S	1738	78	9	2249	0	0	14600	7300	0
S	1738	87	14	635	221	635	68288	1567	0
S	1738	88	9	1095			53186	2409	1
S	1738	92	14	596	207	282	53186	2409	0
S	1738	93	11	596	37	256	64021	2884	0
S	1738	94	9	1095			53186	2409	1
S	1738	97	13	495	9	197	53186	2409	0
S	1738	111	10	6498	229	438	119830	25550	0
S	1738	118	16	2628	183	256	64021	4526	0
S	1738	122	15	596	207	282	64020	2900	0
S	1738	124	9	1318			64020	2900	1
S	1738	130	9	2671	0	0	649334	0	0
S	1738	131	12	596	125	237	64020	2900	0
S	1738	133	11	1318			64020	2900	1
S	1738	134	12	1318			64020	2900	1
S	1738	135	18	1971	146	183	48253	3395	1
S	1738	136	11	1318			64020	2900	1
S	1738	188	5						0
S	1738	190	4						0

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<i>Region</i>	<i>Facility</i>	<i>Unit</i>	<i>Mod</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding ATCs</i>
S	1738	201	8	0	0	0	0	0	0
S	1738	211	5	0	0	0	0	666	0
S	1738	212	5	0	0	0	0	1560	0
S	1738	226	6						0
S	1738	239	5	0	0	0	0	666	0
S	1738	240	11	0	0	0	0	337	0
S	1738	241	6						0
S	1738	242	6						0
S	1738	243	6						0
S	1738	244	6						0
S	1738	245	6						0
S	1738	246	6						0
S	1738	257	5	0	0	0	0	684	0
S	1738	258	6	0	0	0	0	0	0
S	1738	267	8						1
S	1738	279	5	2323	0	260	12642	957	0
S	1738	288	8						0
S	1738	289	7						0
S	1738	290	7						0
S	1738	297	4						0
S	1738	335	4	0	0	0	0	512	0
S	1738	338	4						0
S	1738	339	4						0
S	1738	340	3	0	0	0	0	0	0
S	1738	342	3	0	0	0	0	800	0
S	1738	345	5	4175			201909	7245	1
S	1738	346	6	460	32	111	1681	428	0
S	1738	347	1	956	7	113	5203	923	0
S	1738	349	2	7665	0	897	41180	7002	0

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	1738	354	4	0	0	0	0	0	0
S	1738	355	2						0
S	1738	356	2						0
S	1738	357	2						0
S	1738	358	2						0
S	1738	359	4	635	221	635	68288	1848	0
S	1738	360	4	635	221	635	68288	763	0
S	1738	361	5	635	221	635	68288	1848	0
S	1738	362	4	635	221	635	103745	1526	0
S	1738	363	6	965	67	458	103745	1526	0
S	1738	364	7	965	67	458	103745	1526	0
S	1738	365	6	635	221	635	103745	1526	0
S	1738	366	4	635	221	635	103745	1526	0
S	1738	367	2	1095	34	235	53186	782	1
S	1738	368	4	635	221	635	58510	4198	0
S	1738	369	2	1095	34	235	53186	782	1
S	1738	371	4	635	221	635	68288	1848	0
S	1738	372	2	903	3	31	3076	502	1
S	1738	373	2	903	3	31	3076	502	1
S	1738	374	3	903	3	31	3076	502	0
S	1738	375	4	903	3	31	3076	502	0
S	1738	376	3	903	3	31	3076	502	1
S	1738	377	2	903	3	31	3076	502	0
S	1738	378	3	913	0	37	3066	511	1
S	1738	379	4	903	3	31	3076	502	1
S	1738	380	2	903	3	31	3076	502	0
S	1738	381	2	903	3	31	3076	502	0
S	1738	382	3	903	3	31	3076	502	1
S	1738	383	2	935	3	31	3188	519	0

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

<i>Region</i>	<i>Facility</i>	<i>Unit</i>	<i>Mod</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding ATCs</i>
S	1738	384	3	903	3	31	3076	502	1
S	1738	385	3	1095	3	31	3723	594	1
S	1738	386	2	903	3	31	3076	502	0
S	1738	387	2	913	0	37	3066	511	1
S	1738	388	4	903	3	31	3076	502	0
S	1738	389	4	479	31	31	3188	519	0
S	1738	390	2	903	3	31	3076	502	0
S	1738	391	4	479	31	31	3188	519	0
S	1738	392	2	903	3	31	3076	502	0
S	1738	393	3	903	3	31	3076	502	2
S	1738	394	6	479	31	31	3188	519	1
S	1738	395	4	479	31	31	3188	519	0
S	1738	396	6	479	31	31	3188	519	0
S	1738	397	4	479	31	31	3188	519	0
S	1738	398	4	479	31	31	3188	519	0
S	1738	399	4	479	31	31	3188	519	0
S	1738	400	4	479	31	31	3188	519	0
S	1738	401	2	903	3	31	3076	502	0
S	1738	402	6	479	31	31	3188	519	0
S	1738	403	2	903	3	31	3076	502	0
S	1738	404	4	1095	3	31	3723	594	0
S	1738	405	2	903	3	31	3076	502	0
S	1738	406	4	479	31	31	3188	519	0
S	1738	407	4	903	3	31	3076	502	2
S	1738	408	2	825	0	13	101	31	0
S	1738	409	2	2149	57	50	354	93	0
S	1738	410	3	903	3	31	3076	502	0
S	1738	431	1	0	0	0	0	122	0
S	1738	443	7	0	0	0	0	6680	0

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Region	Facility	Unit	Mod	NOx	SOx	PM10	CO	VOC	Number of Outstanding ATCs
S	1738	444	2						0
S	1738	445	2						0
S	1738	446	2						0
S	1738	447	2						0
S	1738	448	6	532	35	556	50596	1995	1
S	1738	449	3	17870	426	2102	97236	16556	0
S	1738	450	6	281	18	294	26703	1908	1
S	1738	455	2	5549	700	653	30192	5141	0
S	1738	456	1	0	0	0	0	683	0
S	1738	457	1	0	0	0	0	661	0
S	1738	458	1	0	0	0	0	661	0
S	1738	459	1	0	0	0	0	661	0
S	1738	460	1	0	0	0	0	45	0
S	1738	462	1	7	0	0	35	3	0
S	1738	466	0	1752	3504	1664	4052	1205	1
S	1738	471	0	274	197	45	1660	477	0
S	1738	472	0	274	197	45	1660	477	0
S	1738	473	0	274	197	45	1660	477	0
S	1738	474	0	274	197	45	1660	477	0
S	1738	475	0	274	197	45	1660	477	0
S	1738	476	0	274	197	45	1660	477	0
S	1738	477	0	274	197	45	1660	477	0
S	1738	481	0	274	197	45	1660	477	0
S	1738	492	1	0	0	0	0	162	0
S	1738	493	0	1752	3504	1664	4052	1205	1
SSPE (lbs)				463031	26372	52551	4934055	1022832	

Friday, July 31, 2015

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

APPENDIX C
BACT Guideline and Top-Down BACT Analysis

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.

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on Details Page.

Top Down BACT Analysis for NOx, CO and VOC emissions:

Step 1 - Identify All Control Technologies

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

Step 2 - Eliminate Technologically Infeasible Options

Steam-assisted flare. Steam is not available at the site.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

Step 4 - Cost Effectiveness Analysis

The flare has an air-assisted burner. Therefore, a cost analysis is not required.

Step 5 - Select BACT

Air-assisted burner.

Top Down BACT Analysis for PM10 emissions:

Step 1 - Identify All Control Technologies

Steam- or air-assisted or coanda-effect burner. Pilot light fired on LPG or natural gas. (Achieved in Practice)

Step 2 - Eliminate Technologically Infeasible Options

Steam-assisted flare. Steam is not available at the site.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Air-assisted or coanda-effect burner. Pilot light fired on LPG or natural gas. (Achieved in Practice)

Step 4 - Cost Effectiveness Analysis

The flare is air-assisted and the pilot light is fired on natural gas. Therefore, a cost analysis is not required.

Step 5 - Select BACT

Air-assisted burner with natural gas fired pilot light.

Top Down BACT Analysis for SOx emissions:

Step 1 - Identify All Control Technologies

Steam assisted or air-assisted or Coanda effect burner, when steam unavailable.
Pilot light fired solely on LPG or natural gas (Achieved in Practice)

Precombustion SOx scrubbing system (non-emergency flares only) (Technologically feasible)

Step 2 - Eliminate Technologically Infeasible Options

Steam-assisted flare. Steam is not available at the site.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Air-assisted or Coanda effect burner. Pilot light fired solely on LPG or natural gas (Achieved in Practice)

Precombustion SOx scrubbing system (nonemergency flares only) (Technologically feasible)

Step 4 - Cost Effectiveness Analysis

The flare is air-assisted, the pilot light is fired on natural gas, and flared gas sulfur content does not exceeding 1 gr S/100 scf (equivalent to pre-combustion scrubbing, pilot fired on natural gas with a sulfur content not exceeding 1 gr S/100 scf (equivalent to natural gas- fired pilot). Therefore, a cost analysis is not required.

Step 5 - Select BACT

Air-assisted flare, flared gas sulfur content not exceeding 1 gr S/100 scf and pilot light fired only on natural gas

APPENDIX D
HRA/AAQA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: David Toril , AQE - Permit Services
 From: Yu Vu, AQS - Permit Services
 Date: September 14, 2015
 Facility Name: California Resources Elk Hills, LLC
 Location: Section 35, T30S, R23E
 Application #(s): S-382-74-4
 Project #: S-1150872

A. RMR SUMMARY

RMR Summary			
Categories	Flare (Unit 74-4)	Project Totals	Facility Totals
Prioritization Score	44.1	44.1	>1.0
Acute Hazard Index	0.01	0.01	0.84
Chronic Hazard Index	0.00	0.00	0.03
Maximum Individual Cancer Risk (10 ⁻⁶)	0.05	0.05	19.90
T-BACT Required?	No		
Special Permit Conditions?	Yes		

Proposed Permit Conditions

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

Unit # 74-4

- The gas flowrate for this unit shall not exceed 10.35 MMSCF/day and 203.40 MMSCF/year.
[District Rules 2201]

B. RMR REPORT

I. Project Description

Technical Services received a request on August 3, 2015, to perform a Risk Management Review and Ambient Air Quality Analysis (AAQA) for a proposed modification to a flare. The flare is currently authorized to only combust vent gas during emergency events. The applicant is asking for authorization to operate the flare for non-emergency purposes.

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 gas/waste gas flares in oilfields were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Missouri Triangle to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP) and the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) 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 74-4 ¹			
Source Type	Point	Location Type	Rural
Stack Height (m)	61.5	Closest Receptor (m)	~150
Stack Diameter. (m)	4.21	Type of Receptor	Business
Stack Exit Velocity (m/s)	5.13	Max Hours per Year	8,760
Stack Exit Temp. (°K)	644.26	Gas Flowrate (MMSCF/hr)	0.43125
		Gas Flowrate (MMSCF/yr)	203.40

¹ Parameters were determined using the District's Flare Modeling Parameters spreadsheet.

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀. The emission rates used for criteria pollutant modeling were as follows:

Pollutant	lb/hr	lb/yr
NO _x	29.38	14,299
SO _x	1.23	579
PM ₁₀	3.45	1,620
CO	158.88	69,318

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



CALIFORNIA RESOURCES ELK HILLS, LLC
P. O. Box 1001, 28590 Highway 119, Tupman, California 93276
Telephone 661-763-6000

February 25, 2015

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley
Air Pollution Control District-Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725

Subject: California Resources Elk Hills, LLC. - Certification of Compliance

Dear Mr. Scandura,

Rule 2201 section 4.15.2 requires that an owner or operator proposing a federal major modification 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 are either in compliance or on a schedule for compliance with all applicable emission limitations and standards. This letter certifies compliance for California Resources Elk Hills, LLC (CREH) and its affiliates.

CREH is an ownership partner with Chevron USA for the Elk Hills unit wherein CREH is the sole operator. CREH has Notices of Violation outstanding issued by your office. However, all issues associated with the Notices of Violation have been addressed.

Affiliated companies of CREH own interests in or own and/or operate other major stationary sources in California. These major stationary sources are currently in compliance with applicable compliance schedules (if any) and substantially comply with all applicable laws and regulations.

This certification is made on information and belief and is based upon a review of CREH and affiliated company major stationary sources in the State of California by employees of CREH and its affiliates who have responsibility for compliance with environmental requirements. This certification is as of the date of its execution.

Sincerely,

Chad M. Jones
Vice President
Greater Elk Hills Area, CREH

cc: Richard F. Garcia, CREH

APPENDIX F
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-382-74-4

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES ELK HILLS, LLC
MAILING ADDRESS: PO BOX 1001
TUPMAN, CA 93276

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: 35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 535.5 MMBTU/HR EMERGENCY FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP: AUTHORIZE FLARE FOR NON-EMERGENCY SERVICE

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 - 5362 lb, 2nd quarter - 5362 lb, 3rd quarter - 5362 lb, and fourth quarter - 5363 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 Numbers S-4211-2, S-4390-2 and S-4468-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

S-382-74-4 : Aug 17 2015 : 2:50PM - 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 PM10 emissions: 1st quarter -607 lb, 2nd quarter - 607 lb, 3rd quarter - 608 lb, and fourth quarter - 608 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 Numbers N-1280-5 and S-3823-5 (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] 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 - 4417 lb, 2nd quarter - 4417 lb, 3rd quarter - 4417 lb, and fourth quarter - 4418 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 Number S-4211-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
9. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
11. Operation shall include gas riser, flare pilot, 20 hp (minimum) primary combustion air blower, 112 hp (minimum) secondary combustion air blower, and main air inlet nozzle and air duct. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Primary combustion air fan shall be capable of delivering at least 20,000 cfm @ 5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Secondary combustion air fan shall be capable of delivering at least 100,000 cfm @ 4.5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flare shall incinerate gases from HPI and 35R gas plant facility only. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Vent gas heat input shall not exceed 10,300 MMBtu/day nor 185,400 MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Pilot gas heat input shall not exceed 50 MMBtu/day or 18,000 MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Vent gas emission rates from this unit shall not exceed any of the following limits: NOx - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Pilot emission rates from this unit shall not exceed any of the following limits: NOx - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SOx - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] 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, 5.2] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

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, 5.3] 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, 5.4] Federally Enforceable Through Title V Permit
23. {2332} 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
24. Open flares 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. [District Rule 4311]
25. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), 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 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311, 5.8] Federally Enforceable Through Title V Permit
26. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311] Federally Enforceable Through Title V Permit
27. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule]
28. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule]

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29. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4). Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311]
30. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311]
31. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311]
32. To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If a semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. The sulfur content of the gas being flared shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. The fuel higher heating value for the gases being flared shall be certified by third party fuel supplier or determined by ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]
36. This flare shall not be used as a leak control device as described in Rule 4409, 5.3.5 (adopted April 20, 2005), nor as a control device for any permit unit subject to NSPS, without modification of permit requirements to address 40 CFR 60.18. [District Rule 2520, 9.4.3] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of the duration of flare operation, amount of gas flared, the nature of the emergency situation and any corrective action take to rectify the process upset or breakdown that necessitated the use of the flare. [District Rules 2520, 9.3.2 and 4311, 6.1] Federally Enforceable Through Title V Permit

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38. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for the flare for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and District Rule 4311, 6.1] Federally Enforceable Through Title V Permit
39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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