San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JAN 2 6 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-2234
Project # 1150871

Dear Mr. Rodriguez:

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

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

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

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM: dt/ya

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Waste Gas Flares

Facility Name:	California Resources Elk Hills, LLC	Date:	~~8/12/15~~ 11/19/16
Mailing Address:	PO Box 1001 Tupman, CA 93276	Engineer:	David Torii
		Lead Engineer:	Rich Karrs
Contact Person:	Raymond Rodriguez		
Telephone:	661-763-6159		
Application #(s):	S-2234-8-4, '14-4, '204-3, '205-3 and '235-1		
Project #:	1150871		
Deemed Complete:	6/17/15		

I. Proposal

California Resources Elk Hills, LLC (CRE) has requested Authority to Construct (ATC) permits to authorize the non-emergency operation of flares S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 and to limit their use via an SLC that will limit the combined volume of vent-gas they can combust. Currently, the flares are only authorized to combust vent gas during emergency events. This project will allow for the flares to combust vent gas during non-emergency events. Additionally, this project will develop a specific limiting condition (SLC) that will limit the combined amount of vent gas combusted in the five flares to 30,938 MMBtu/day and 185,625 MMBtu/year.

CRE received their Title V Permit on 4/30/99. 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 at the CRE gas plant in Tupman. 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 flares receive vapors from the gas processing plants listed in the respective PTOs.

V. Equipment Listing

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

S-2234-8-3: 104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT

S-2234-14-3: 105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1

S-2234-204-2: 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT

S-2234-205-2: 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT

S-2234-235-0: 250 MMSCF/DAY EMERGENCY USE SMOKELESS SONIC FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM (REVISED 12/15/10)

Proposed ATCs:

S-2234-8-4: MODIFICATION OF 104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

S-2234-14-4: MODIFICATION OF 105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

S-2234-204-3: MODIFICATION OF 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

S-2234-205-3: MODIFICATION OF 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

S-2234-235-1: MODIFICATION OF 250 MMSCF/DAY EMERGENCY USE SMOKELESS SONIC FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM

(REVISED 12/15/10): AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

Post Project Equipment Description:

S-2234-8-4: 104.6 MMBTU/HR LOW PRESSURE AIR ASSISTED FLARE SERVING LTS #2 PLANT

S-2234-14-4: 105.6 MMBTU/HR LOW PRESSURE AIR ASSISTED FLARE SERVING LTS #1

S-2234-204-3: 7,300 MMBTU/HR HIGH PRESSURE COANDA-EFFECT FLARE SERVING LTS #1 PLANT

S-2234-205-3: 7,300 MMBTU/HR HIGH PRESSURE COANDA-EFFECT FLARE SERVING LTS #2 PLANT

S-2234-235-1: 250 MMSCF/DAY SMOKELESS SONIC COANDA-EFFECT FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM

VI. Emission Control Technology Evaluation

Flares S-2234-8 and '14 have an air-assisted tip which uses large amounts of air in order to increase turbulent mixing and promote complete combustion of hydrocarbons. This reduces NOs emissions and smoke/particulate matter (PM10) which are caused by high temperatures and incomplete combustion.

Flares S-2234-204, '205 and '235 have coanda-effect tips which draw in large amounts of air in order to increase turbulent mixing of fuel and air which promotes complete hydrocarbon combustion. This reduces carbon monoxide (CO) 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 SLC heat input limit is 30,938 MMBtu/day and 185,625 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 110 MMBtu/day and 40,000 MMBtu/year (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 flares are currently permitted as emergency-use-only equipment; therefore, their emissions are assumed to be zero for NSR purposes.

2. Post Project Potential to Emit (PE2)

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

$PE2_{NOx(vent\ gas)}$ = (0.068 lb/MMBtu)(30,938 MMBtu/day)
= 2,103.8 lb NO_X/day

= (0.068 lb/MMBtu)(185,625 MMBtu/yr)
= 12,623 lb NO_X/yr

$PE2_{NOx(pilot)}$ = (0.094 lb/MMBtu)(110 MMBtu/day)
= 10.3 lb NO_X/day

= (0.094 lb/MMBtu)(40,000 MMBtu/yr)
= 2,720 lb NO_X/yr

Vent Gas SLC PE2		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO_X	2103.8	12,623
SO_X	88.2	529
PM_{10}	247.5	1,485
CO	11447.1	68,681
VOC	1949.1	11,694

Pilot SLC PE2		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO_X	10.3	3,760
SO_X	0.3	114
PM_{10}	0.8	304
CO	4.4	1,600
VOC	0.6	220

Total SLC PE2 (lb/day)			
	Vent Gas	Pilot	Total
NO_X	2103.8	10.3	2114.1
SO_X	88.2	0.3	88.5
PM_{10}	247.5	0.8	248.3
CO	11447.1	4.4	11451.5
VOC	1949.1	0.6	1949.7

Total SLC PE2 (lb/year)			
	Vent Gas	Pilot	Total
NO_X	12,623	3,760	16,383
SO_X	529	114	643
PM_{10}	1,485	304	1,789
CO	68,681	1,600	70,281
VOC	11,694	220	11,914

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

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

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

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

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

Since facility emissions are already above the Offset and Major Source Thresholds for all pollutants, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

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

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

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

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

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to 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	16,383	50,000	N
SO_x	643	80,000	N
PM_{10}	1,789	30,000	N
VOC	11,914	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.

Emission Increase = PAE – BAE - 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	16,383	0	Y
VOC	11,914	0	Y
PM_{10}	1,789	30,000	N
$PM_{2.5}$	1,789	20,000	N
SO_x	643	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 futher 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	8.2	0.3	35.1	0.9	0.9
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

AIPE = PE2 – 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)

HAPE = PE1 x (EF2/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

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

EF1 = EF2, therefore, AIPE = PE2

AIPE (lb/day)			
	Vent Gas	Pilot	Total (AIPE)
NO_X	2103.8	10.3	2114.1
SO_X	88.2	0.3	88.5
PM_{10}	247.5	0.8	248.3
CO	11,447.1	4.4	11,451.5
VOC	1949.1	0.6	1949.7

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 B)**

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 B**), BACT has been satisfied with the following:

NO_X: Air-assisted or coanda effect flare
SO_X: Air-assisted or coanda effect flare and pilot light fired only on natural gas
PM_{10}: Air-assisted burner with natural gas fired pilot light.
CO: Air-assisted or coanda effect flare
VOC: Air-assisted or coanda effect flare

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
SSPE2	>20,000	>54,750	>29,200	>200,000	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	y	y	y	y	y

2. Quantity of Offsets Required

As seen above, the 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) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

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

BE = PE1 for:

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

otherwise,

BE = HAE

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

Offsets Required (lb/year) = PE2 x DOR

NOx:

PE2 (NO_X) = 16,383 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:

Offsets Required (lb/year) = (16,383) x 1.5
= 24,575 lb NO_X/year

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

Quarterly offsets required (lb/qtr) = (24,575 lb NO_X/year) ÷ (4 quarters/year)
= 6,143.75 lb/qtr

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 ÷ 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:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
6,143	6,144	6,144	6,144

The applicant has stated that the facility plans to use ERC certificates S-4211-2 and S-4390-2 to offset the increases in NO_X emissions associated with this project. The above certificates have available quarterly NO_X credits as follows:

ERC #	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
S-4211-2	1537	2476	6144	5681
S-4390-2	4606	3668	0	463

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 – 6,143 lb, 2nd quarter – 6,144 lb, 3rd quarter – 6,144 lb, and fourth quarter – 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

SOx:

PE2 (SO_X) = 643 lb/year

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

SOx Offsets Required (lb/year) = 643 x 1.5
= 965 lb/year

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

Quarterly offsets required (lb/qtr) = (965 lb /year) ÷ (4 quarters/year)
= 241.25 lb/qtr

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 ÷ 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:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
241	241	241	242

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

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #N-1280-5	1,254	1,246	1,246	1,246

As seen above, the facility has sufficient credits to fully offset the quarterly SO_X and 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 emissions: 1st quarter – 241 lb, 2nd quarter – 241 lb, 3rd quarter – 241 lb, and fourth quarter – 242 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx 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 (PM10) = 1,789 lb/year

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

Interpollutant offset ratios for trades between SO_X and PM_{10} are allowed pursuant to Rule 2201, Section 4.13.3.1.2. Pursuant to draft District policy APR 1430, SOx 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 PM_{10} will be applied.

PM10 Offsets Required (lb/year) = 1,789 x 1.5
= 2,684 lb/year

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

Quarterly offsets required (lb/qtr) = (2,684 lb /year) ÷ (4 quarters/year)
= 671 lb/qtr

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
671	671	671	671

The applicant has stated that the facility plans to use ERC certificate N-1280-5 to offset the increases in SO_X and PM10 emissions associated with this project. The above certificate has available quarterly SO_X credits as on the previous page:

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 emissions: 1st quarter – 671 lb, 2nd quarter – 671 lb, 3rd quarter – 671 lb, and fourth quarter – 671 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 N-1280-5 (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) = 11,914 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:

Offsets Required (lb/year) = (11,914) x 1.5
= 17,871 lb VOC/year

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

Quarterly offsets required (lb/qtr) = (17,871 lb VOC/year) ÷ (4 quarters/year)
= 4,467.75 lb/qtr

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 ÷ 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:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
4467	4468	4468	4468

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:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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 – 4467 lb, 2nd quarter - 4468lb, 3rd quarter – 4468 lb, and fourth quarter – 4468 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	>54,750 lb/year	>54,750 lb/year	54,750 lb/year	No
PM_{10}	>29,200 lb/year	>29,200 lb/year	29,200 lb/year	No
CO	>200,000 lb/year	>200,000 lb/year	200,000 lb/year	No
VOC	>20,000 lb/year	>20,000 lb/year	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds			
Pollutant	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_x	16,383	20,000 lb/year	No
SO_x	643	20,000 lb/year	No
PM_{10}	1,789	20,000 lb/year	No
CO	70,281	20,000 lb/year	Yes
VOC	11,914	20,000 lb/year	No

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

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: 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] Y

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] Y

Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Y

Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Y

Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Y

Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [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:

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] N

Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Y

Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Y

Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] 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 C** 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 PM_{10} 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 PM_{10} 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 D.

H. Alternate Siting Analysis

The current project occurs at an existing facility. Since the flare will provide gas incineration to be used at the same location, the existing sites 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 C**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

RMR Summary			
Categories	**Flare (Units 8-4, -14-4, -204-3, -205-3, and -235-1)[1]**	**Project Totals**	**Facility Totals**
Prioritization Score	478	478	>1.0
Acute Hazard Index	0.01	0.01	0.24
Chronic Hazard Index	0.00	0.00	0.02
Maximum Individual Cancer Risk (10^{-6})	0.02	0.02	3.65
T-BACT Required?	No		
Special Permit Conditions?	Yes		

[1] All of the units in this project share the same throughput limit. Each unit was modeled using the maximum proposed throughput and the worst case scores for each category at any single unit were used as the representative scores for the project.

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 permits:

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 permits:

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 permits:

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 permits:

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 permits:

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 to Operate.

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 SOx) 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 E**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-2234-8-4	3020-02 H	104.6 MM BTU/HR	$1080
S-2234-14-4	3020-02 H	105.6 MM BTU/HR	$1080
S-2234-204-3	3020-02 H	7300 MM BTU/HR	$1080
S-2234-205-3	3020-02 H	104.6 MM BTU/HR	$1080
S-2234-235-1	3020-02 H	11,156 MM BTU/HR	$1080

Appendixes

A: Current PTOs
B: BACT Guideline and BACT Analysis
C: HRA and AAQA
D: Compliance Certification
E: Draft ATCs

APPENDIX A
Current PTOs

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-2234-8-3 **EXPIRATION DATE:** 10/31/2016

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT

PERMIT UNIT REQUIREMENTS

1. 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
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The flare shall be operated only in an emergency. An emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable 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 quality 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, 3.7, 5.1] Federally Enforceable Through Title V Permit
4. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
5. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
6. 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
7. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

9. 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] Federally Enforceable Through Title V Permit

10. 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] Federally Enforceable Through Title V Permit

11. 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] Federally Enforceable Through Title V Permit

12. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. 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] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Periods of flare monitoring system inoperation 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
16. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
17. Permittee 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
18. 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
19. Effective on and after July 1, 2012, permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of the duration of flare operation, amount of gas burned, the nature of the emergency situation and any corrective action take to rectify the process upset of breakdown that necessitated the use of the flare. [District Rules 2520, 9.4.2 and 4311, 6.1.3] Federally Enforceable Through Title V Permit
21. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit
23. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-2234-14-3 **EXPIRATION DATE:** 10/31/2016

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1

PERMIT UNIT REQUIREMENTS

1. 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
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The flare shall be operated only in an emergency. An emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable 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 quality 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, 3.7, 5.1] Federally Enforceable Through Title V Permit
4. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
5. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
6. 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
7. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

9. 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] Federally Enforceable Through Title V Permit

10. 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] Federally Enforceable Through Title V Permit

11. 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] Federally Enforceable Through Title V Permit

12. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. 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] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Periods of flare monitoring system inoperation 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
16. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
17. Permittee 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
18. 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
19. Effective on and after July 1, 2012, permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of the duration of flare operation, amount of gas burned, the nature of the emergency situation and any corrective action take to rectify the process upset of breakdown that necessitated the use of the flare. [District Rules 2520, 9.4.2 and 4311, 6.1.3] Federally Enforceable Through Title V Permit
21. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit
23. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-2234-204-2 **EXPIRATION DATE:** 10/31/2016

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The flare shall be operated only in an emergency. An emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable 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 quality 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 Rule 4311] Federally Enforceable Through Title V Permit
3. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
5. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
6. 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
7. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

9. 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] Federally Enforceable Through Title V Permit

10. 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] Federally Enforceable Through Title V Permit

11. 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 6.3.4] Federally Enforceable Through Title V Permit

12. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. 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] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Periods of flare monitoring system inoperation 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
16. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
17. Permittee 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
18. 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
19. Effective on and after July 1, 2012, the permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1.3] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-2234-205-2 **EXPIRATION DATE:** 10/31/2016

SECTION: 34 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The flare shall be operated only in an emergency. An emergency is defined as any situation or a condition arising from a sudden and reasonably unforeseeable 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 quality 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 Rule 4311] Federally Enforceable Through Title V Permit
3. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
5. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
6. 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
7. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

9. 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] Federally Enforceable Through Title V Permit

10. 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] Federally Enforceable Through Title V Permit

11. 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 6.3.4] Federally Enforceable Through Title V Permit

12. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. 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] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Periods of flare monitoring system inoperation 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
16. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit
17. Permittee 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
18. 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
19. Effective on and after July 1, 2012, the permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311, 6.1.3] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-2234-235-0 **EXPIRATION DATE:** 10/31/2016

SECTION: NW35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
250 MMSCF/DAY EMERGENCY USE SMOKELESS SONIC FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM (REVISED 12/15/10)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit
2. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit
3. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Flare shall not operate with visible emissions darker than 5% opacity or 1/4 Ringelmann for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Flare shall be equipped with waste gas volume flow metering system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Flare shall be equipped with continuous pilot light or automatic re-ignition provisions. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H2S). [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This flare shall be operated only during emergency situations. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Maximum amount of gas combusted shall not exceed 267,750 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx (as NO2): 0.068 lb/MMBtu; PM10: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup and at least once every year thereafter. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
16. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. Permittee shall keep accurate records of daily and annual quantity of gas combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When combustible gases are vented to the flare, flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311]
21. The permittee shall maintain monthly records of the number of hours of emergency operation. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
23. 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]

APPENDIX B
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 s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is requried 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 flares have either an air-assisted or coanda-effect burner. Therefore, a cost analysis is not required.

Step 5 - Select BACT

Air-assisted or coanda-effect 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 flares have either air-assisted or coanda-effect 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 or Coanda effect flare, flared gas sulfur content not exceeding 1 gr S/100 scf and pilot light fired only on natural gas

APPENDIX C
HRA and AAQA

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	David Torii , 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 (CRE Gas Plant)
Application #(s):	S-2234-8-4, -14-4, -204-3, -205-3, and -235-1
Project #:	S-1150871

A. RMR SUMMARY

RMR Summary			
Categories	**Flare (Units 8-4, -14-4, -204-3, -205-3, and -235-1)[1]**	**Project Totals**	**Facility Totals**
Prioritization Score	478	478	>1.0
Acute Hazard Index	0.01	0.01	0.24
Chronic Hazard Index	0.00	0.00	0.02
Maximum Individual Cancer Risk (10^{-6})	0.02	0.02	3.65
T-BACT Required?	No		
Special Permit Conditions?	Yes		

[1] All of the units in this project share the same throughput limit. Each unit was modeled using the maximum proposed throughput and the worst case scores for each category at any single unit were used as the representative scores for the project.

Proposed Permit Conditions

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

Unit #s 8-4, -14-4, -204-3, -205-3, and -235-1

1. The combined gas flowrate for these units shall not exceed 31.05 MMSCF/day and 225.63 MMSCF/year. [District Rules 2201]

B. RMR REPORT

I. Project Description

Technical Services received a request on August 4, 2015, to perform a Risk Management Review and Ambient Air Quality Analysis (AAQA) for a proposed modification to five flares.

The flares are currently authorized to only combust vent gas during emergency events. The applicant is asking for authorization to operate the flares 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 Units 8-4 and 14-4 (Each)[1]			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	38.0	**Closest Receptor (m)**	~230
Stack Diameter. (m)	7.3	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	56.25	**Max Hours per Year**	8,760
Stack Exit Temp. (°K)	644.26	**Gas Flowrate (MMSCF/hr)**	1.29375
		Gas Flowrate (MMSCF/yr)	225.63

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

Analysis Parameters Unit 204-3 and 205-3 (Each)[1]			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	45.62	**Closest Receptor (m)**	~230
Stack Diameter. (m)	7.3	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	56.25	**Max Hours per Year**	8,760
Stack Exit Temp. (°K)	644.26	**Gas Flowrate (MMSCF/hr)**	1.29375
		Gas Flowrate (MMSCF/yr)	225.63

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

Analysis Parameters Unit 235-1[1]			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	84.91	**Closest Receptor (m)**	~230
Stack Diameter. (m)	7.3	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	45.12	**Max Hours per Year**	8,760
Stack Exit Temp. (°K)	644.26	**Gas Flowrate (MMSCF/hr)**	1.29375
		Gas Flowrate (MMSCF/yr)	225.63

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

Technical Services also performed modeling for criteria pollutants CO, NOx, SOx and PM_{10}. The emission rates used for criteria pollutant modeling were as follows:

Pollutant	lb/hr	lb/yr
NO_x	88.09	16,383
SO_x	3.69	643
PM_{10}	10.35	1,789
CO	477.15	70,281

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*[3]

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.

[1] The 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.

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

[3] Similar to the toxic emissions, the total project criteria emissions were applied to each unit in the project. The worst case values for each pollutant and averaging period at any single unit were used as the project's representative values. These values were then evaluated against the appropriate Ambient Air Quality standards.

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 D
Compliance Certification

CALIFORNIA RESOURCES CORPORATION

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 an 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 E
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2234-8-4 **ISSUANCE DATE:** DRAFT

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

LOCATION: GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 104.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #2 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

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 - 6,143 lb, 2nd quarter - 6,144 lb, 3rd quarter - 6,144 lb, and fourth quarter - 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
S-2234-8-4 : Dec 30 2015 12:16PM – TORID Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 241 lb, 2nd quarter - 241 lb, 3rd quarter - 241 lb, and fourth quarter - 242 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 671 lb, 2nd quarter - 671 lb, 3rd quarter - 671 lb, and fourth quarter - 671 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 4467 lb, 2nd quarter - 4468lb, 3rd quarter - 4468 lb, and fourth quarter - 4468 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. The above offsets will satisfy the offset requirements for all of ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 combined. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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 Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
17. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. 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

20. 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

21. 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

22. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

30. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

31. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. 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] Federally Enforceable Through Title V Permit

33. 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] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. 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] Federally Enforceable Through Title V Permit

36. 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] Federally Enforceable Through Title V Permit

37. Periods of flare monitoring system inoperation 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

38. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

39. Permittee 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

40. 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

41. 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]

42. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

43. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

44. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

45. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2234-14-4 **ISSUANCE DATE:** DRAFT

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

LOCATION: GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 105.6 MMBTU/HR LOW PRESSURE FLARE SERVING LTS #1: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

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 - 6,143 lb, 2nd quarter - 6,144 lb, 3rd quarter - 6,144 lb, and fourth quarter - 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
S-2234-14-4 : Dec 30 2015 12:16PM – TORID : Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 241 lb, 2nd quarter - 241 lb, 3rd quarter - 241 lb, and fourth quarter - 242 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 671 lb, 2nd quarter - 671 lb, 3rd quarter - 671 lb, and fourth quarter - 671 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 4467 lb, 2nd quarter - 4468lb, 3rd quarter - 4468 lb, and fourth quarter - 4468 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. The above offsets will satisfy the offset requirements for all of ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 combined. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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 Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
17. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. 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

20. 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

21. 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

22. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

30. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

31. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. 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] Federally Enforceable Through Title V Permit

33. 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] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. 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] Federally Enforceable Through Title V Permit

36. 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] Federally Enforceable Through Title V Permit

37. Periods of flare monitoring system inoperation 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

38. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

39. Permittee 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

40. 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

41. 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]

42. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

43. Records of flare maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

44. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

45. Compliance with the requirements for this permit unit shall be deemed compliance with District Rules 4201. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2234-204-3 **ISSUANCE DATE:** DRAFT

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

LOCATION: GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #1 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

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 - 6,143 lb, 2nd quarter - 6,144 lb, 3rd quarter - 6,144 lb, and fourth quarter - 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

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

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 241 lb, 2nd quarter - 241 lb, 3rd quarter - 241 lb, and fourth quarter - 242 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 671 lb, 2nd quarter - 671 lb, 3rd quarter - 671 lb, and fourth quarter - 671 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 4467 lb, 2nd quarter - 4468lb, 3rd quarter - 4468 lb, and fourth quarter - 4468 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. The above offsets will satisfy the offset requirements for all of ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 combined. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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 Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
16. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
17. 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
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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

21. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

29. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

30. 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] Federally Enforceable Through Title V Permit

31. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. 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 6.3.4] Federally Enforceable Through Title V Permit

33. 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] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. 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] Federally Enforceable Through Title V Permit

36. Periods of flare monitoring system inoperation 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

37. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

38. Permittee 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

CONDITIONS CONTINUE ON NEXT PAGE

39. 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

40. 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]

41. The permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

42. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2234-205-3 **ISSUANCE DATE:** DRAFT

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

LOCATION: GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

SECTION: 34 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 7,300 MMBTU/HR HIGH PRESSURE FLARE SERVING LTS #2 PLANT: AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

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 - 6,143 lb, 2nd quarter - 6,144 lb, 3rd quarter - 6,144 lb, and fourth quarter - 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
S-2234-205-3 : Dec 30 2015 12:16PM - TORID : Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 241 lb, 2nd quarter - 241 lb, 3rd quarter - 241 lb, and fourth quarter - 242 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC Certificate Number N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 671 lb, 2nd quarter - 671 lb, 3rd quarter - 671 lb, and fourth quarter - 671 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 4467 lb, 2nd quarter - 4468lb, 3rd quarter - 4468 lb, and fourth quarter - 4468 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. The above offsets will satisfy the offset requirements for all of ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 combined. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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 Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
16. 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. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
17. 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
18. 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

CONDITIONS CONTINUE ON NEXT PAGE

19. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.00285 lb-SOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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

21. Combined daily vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 30,938 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Combined annual vent gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 185,625 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Combined daily vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 2,103.8 lb-NOx; 88.2 lb-SOx; 247.5 lb-PM10; 11,447.1 lb-CO; 1,949.1 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Combined annual vent gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 12,623 lb-NOx; 529 lb-SOx; 1,485 lb-PM10; 68,681 lb-CO; 11,694 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Combined daily pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 110 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Combined annual pilot gas heat input from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed 40,000 MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Combined daily pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 10.3 lb-NOx; 0.3 lb-SOx; 0.8 lb-PM10; 4.4 lb- CO; 0.6 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit

29. The operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition; 3) If vent gas composition is monitored by a continuous analyzer or analyzers, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine the flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report. The flow verification report shall include flow verification testing using approved test methods. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit

30. 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] Federally Enforceable Through Title V Permit

31. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. 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 6.3.4] Federally Enforceable Through Title V Permit

33. 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] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. 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] Federally Enforceable Through Title V Permit

36. Periods of flare monitoring system inoperation 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

37. During periods of inoperation of continuous analyzers or auto-samplers, 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 using approved test methods. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

38. Permittee 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

CONDITIONS CONTINUE ON NEXT PAGE

39. 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]

40. 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

41. Permittee shall maintain a copy of annual reports submitted to the APCO. [District Rule 4311, 6.1.6] Federally Enforceable Through Title V Permit

42. Permittee shall maintain records of all monitoring data collected. [District Rule 4311, 6.1.7] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-2234-235-1 **ISSUANCE DATE:** DRAFT

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

LOCATION: GAS PLANT
SECTION SE-35, T-30S, R-23E
TUPMAN, CA

SECTION: NW35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 250 MMSCF/DAY EMERGENCY USE SMOKELESS SONIC FLARE WITH FLARE HEADER AND FLARE KNOCK OUT DRUM (REVISED 12/15/10): AUTHORIZE FLARES '8, '14, '204, '205 AND '235 FOR NON-EMERGENCY SERVICE AND ESTABLISH AN SLC

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 - 6,143 lb, 2nd quarter - 6,144 lb, 3rd quarter - 6,144 lb, and fourth quarter - 6,144 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 and S-4390-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

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

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 241 lb, 2nd quarter - 241 lb, 3rd quarter - 241 lb, and fourth quarter - 242 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

6. ERC Certificate Number N-1280-5 (or a certificate split from this certificate) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 671 lb, 2nd quarter - 671 lb, 3rd quarter - 671 lb, and fourth quarter - 671 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 N-1280-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 4467 lb, 2nd quarter - 4468lb, 3rd quarter - 4468 lb, and fourth quarter - 4468 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

10. 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

11. The above offsets will satisfy the offset requirements for all of ATCs S-2234-8-4, '14-4, '204-3, '205-3 and '235-1 combined. [District Rule 2201] Federally Enforceable Through Title V Permit

12. 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 Rule 2201] Federally Enforceable Through Title V Permit

13. 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

14. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using (ALR) equations for a 2,000 ppmv leak threshold included in EPA, "Protocol for Estimating Leak Emissions" (EPA - 453/R-95-017, November 1995). [District Rule 2201] Federally Enforceable Through Title V Permit

15. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 2,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated to methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate more than 3 drops per minute. A gas or liquid leak is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

16. BACT Requirement Any leak greater than 500 ppmv for pump seals and compressor seals and 100 ppmv for valves and connectors, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District Rules 2201 and 4409] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

17. VOC fugitive emissions shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Flare shall not operate with visible emissions darker than 5% opacity or 1/4 Ringelmann for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Flare shall be equipped with waste gas volume flow metering system. [District Rule 2201] Federally Enforceable Through Title V Permit
20. A flame shall be present at all times when combustible gases are vented through this flare. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Flare shall be equipped with continuous pilot light or automatic re-ignition provisions. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Sulfur compound concentration of gas combusted shall not exceed 1.0 gr S/100 scf (16.9 ppmv H2S). [District Rule 2201] Federally Enforceable Through Title V Permit
24. Only natural gas with a sulfur content not exceeding 1.0 gr S/100scf shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
25. 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
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34. Combined annual pilot gas emissions from permit units S-2234-8, -14, -204, -205, and - 235 shall not exceed any of the following: 3,760 lb-NOx; 114 lb-SOx; 304 lb-PM10; 1,600 lb-CO; 220 lb-VOC. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup and at least once every year thereafter. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit

37. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

38. Permittee shall keep accurate records of daily and annual quantity of gas combusted. [District Rule 2201] Federally Enforceable Through Title V Permit

39. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit

40. When combustible gases are vented to the flare, flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311]

41. Permittee shall comply with applicable monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit

42. 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]

43. 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]