

JAN 24 2019

Michael McDonald
Chevron Pipe Line Company
PO Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-8595
Project Number: S-1183406

Dear Mr. McDonald:

Enclosed for your review and comment is the District's analysis of Chevron Pipe Line Company's application for an Authority to Construct for modification of a pipeline depressurization system served by a flare, in the Kern River oilfield.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392--5617.

Sincerely,



Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

cc: Tung Le, CARB (w/ enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Authorize 24 hr/yr for maintenance and testing of emergency flare

Facility Name: Chevron Pipe Line Company
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Contact Person: Michael McDonald and Mike Kelly (Vector Environmental)
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Application #: S-8595-1-2
Project #: S-1183406
Deemed Complete: September 4, 2018

Date: January 17, 2019
Engineer: Richard Edgehill
Lead Engineer: Richard Karrs

I. Proposal

Chevron Pipe Line Company (CPL) has requested an Authority to Construct (ATC) to allow up to 24 hr/yr maintenance and testing of an emergency flare. The flare is used for pipeline depressurization during emergencies. As the current permit only allows for emergency operation, emergency use emissions from the flare are not included in the Stationary Source Potential to Emit (SSPE). Therefore, the 24 hr/yr nonemergency emissions are considered as new emissions subject to NSR analysis.

The project also clarifies use of the flare (for emergency pipeline depressurization) and revises the heat input rating from rating from MMscf/hr to the equivalent MMBtu/hr.

The project triggers BACT and public notice. The flare is exempt from offsets pursuant to Section 4.6.2 of Rule 2201.

CPL is not a major source and therefore Rules 2520 and 2530 are not applicable.

Disposition of Outstanding ATCs

Current PTO S-8595-1-1 is included in **Attachment I**.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4311	Flares (6/18/09)
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 flare is located at the G&W compressor site within the Kern River Oilfield in the SW/4 of Section 31, Township 28S, Range 28E. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The flare currently operates solely as an emergency release for the gas volume in the pipeline between the G&W Site to the next compressor station (approximately 3 MMscf of gas). Applicant is requesting authorization of 24 hr/yr nonemergency maintenance and testing in this project.

V. Equipment Listing

Pre-project Equipment

PTO S-8959-1-1: 4.375 MMSCF/HR AIR ASSIST PACIFIC PROCESS SYSTEMS
EMERGENCY FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS
FLOW METER (G&W)

Proposed Modifications:

ATC S-8959-1-2: MODIFICATION OF PIPELINE REPRESSURIZATION SYSTEM SERVED
BY 4,550 MMBTU/HR AIR ASSIST PACIFIC PROCESS SYSTEMS
EMERGENCY FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS
FLOW METER (G&W COMPRESSOR SITE): AUTHORIZE 24 HR/YR
NONEMERGENCY OPERATION FOR MAINTENANCE AND TESTING,
CLARIFY FLARE USE TO PIPELINE DEPRESSURIZATION AND
EXPRESS HEAT INPUT RATING IN UNITS OF MMBTU/HR

Post-Project Equipment

PTO S-8959-1-2: PIPELINE REPRESSURIZATION SYSTEM SERVED BY 4,550
MMBTU/HR AIR ASSIST PACIFIC PROCESS SYSTEMS EMERGENCY
FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS FLOW
METER (G&W)

VI. Emission Control Technology Evaluation

The flare tip is air-assisted and ignition will result using an electronic igniter. The tip uses large amounts of air in order to increase turbulent mixing and promote complete combustion of hydrocarbons. This reduces carbon monoxide (CO) emissions and smoke/particulate matter (PM10) which are caused by high temperatures and incomplete combustion.

The proposed emergency flare will only operate during an emergency situation and for up to 24 hr/yr for testing or maintenance purposes (non-emergency operation).

VII. General Calculations

A. Assumptions

- Emergency operating schedule: 24 hours/day
- Non-emergency operating schedule: 24 hours/year
- Gas flow rate is 4.375 MMscf/hr (flare unit's physical limitation)
- Gross heating value of produced gas is 1,040 Btu/scf (gas analysis submitted for project 1154350)
- Sulfur content of produced gas is less than 1.0 gr-S/100 scf (current PTO)
- The wt% VOCs in the gas is assumed to be 10% (Project 1154350)
- Flare gas density: 0.0463 (average of 4 values in gas analysis submitted in project 1154350)
- Flare heat input rating: 4.375 MMscf/hr x 1,040 MMBtu/MMscf = 4,550 MMBtu/hr
- The flare is a control device for a pipeline depressurization system (only a source of VOC emissions).

B. Emission Factors

Pursuant to District FYI 83 the following emission factors from EPA AP-42 section 13.5 Industrial Flares (9/91) represent best data for flares located at oil exploration and production operations, refineries, chemical plants, gas plants, and other petroleum related industries. The subject flare is operated in an oil production operation; therefore, the emission factors from FYI 83 will be used:

Pollutant	lb/MMBtu
NOx (as NO2)	0.068
SOx (as SO2)	0.00285*
PM10 (BACT)	0.008
CO	0.310
VOC	0.1068**

* District standard for natural gas

$$\begin{aligned}
 \text{**VOC} &= 1.2 (200)(\text{Wt \% VOCs})(\text{density gas})/\text{hhv} \\
 &= 1.2(200)(10)(0.0463)/1040 \\
 &= 0.1068 \text{ lb/MMBtu}
 \end{aligned}$$

C. Calculations

1. Pre-Project Potential to Emit (PE2)

Pollutant	Daily PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE1 (lb/day)
NO _x	0.068	4550	24	7,425.6
SO _x	0.00285	4550	24	311.2
PM ₁₀	0.0080	4550	24	873.6
CO	0.310	4550	24	33,852.0
VOC	0.1068	4550	24	11,662.6

Pollutant	Annual PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE1 (lb/year)
NO _x	0.068	4550	0	0
SO _x	0.00285	4550	0	0
PM ₁₀	0.0080	4550	0	0
CO	0.310	4550	0	0
VOC	0.1068	4550	0	0

2. Post-project Potential to Emit (PE2)

Pollutant	Daily PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE2 (lb/day)
NO _x	0.068	4550	24	7,425.6
SO _x	0.00285	4550	24	311.2
PM ₁₀	0.0080	4550	24	873.6
CO	0.310	4550	24	33,852.0
VOC	0.1068	4550	24	11,662.6

Pollutant	Annual PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE1 (lb/year)
NO _x	0.068	4550	24	7,426
SO _x	0.00285	4550	24	311
PM ₁₀	0.0080	4550	24	874
CO	0.310	4550	24	33,852
VOC	0.1068	4550	24	11,663

Emissions profiles are included in **Attachment II**.

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

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

SSPE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-8595-1-1	0	0	0	0	0
SSPE1	0	0	0	0	0

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

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

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-8595-1-2	7,426	311	874	33,852	11,663
SSPE2	7,426	311	874	33,852	11,663

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	0	0	0	0	0	0
SSPE2	7,426	311	874	874	33,852	11,663
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM_{2.5} assumed to be equal to PM₁₀

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source 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)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	0	0	0	0	0	0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.

Therefore BE = PE1 = 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 not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification.

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

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

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Sulfuric acid mist
- Hydrogen sulfide (H₂S)
- Total reduced sulfur (including H₂S)
- Reduced sulfur compounds

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

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

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO₂	VOC	SO₂	CO	PM	PM₁₀
Total PE from New and Modified Units	3.7	5.8	0.2	16.9	0.4	0.4
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.

PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

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

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

	Quarterly NEC [QNEC] (Per Existing Tank)			
	PE2 (lb/yr)	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	7,426	1,856.5	0	1,856.5
SO _x	311	77.75	0	77.75
PM ₁₀	874	218.5	0	218.5
CO	33,852	8,463	0	8,463
VOC	11,663	2,915.75	0	2,915.75

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, 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 Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

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

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

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

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

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

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

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

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

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

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

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

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

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

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

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

District Policy APR 1350-0 BACT Applicability for Increase in Annual Utilization states that "Modifications to existing emission units that result in permitted utilization such that the AIPE increases more than 2.0 lb in any one day, including, but not limited to, increasing daily permitted utilization, increasing the number of days or hours of annual operation, increasing annual throughput limitations, and increasing annual fuel use limitation, are required to satisfy the BACT requirements of Rule 2201 section 4.1.2."

As stated in the proposal section the flare is used to depressurize pipelines and therefore is a VOC control device. As NO_x, SO_x, PM₁₀ are collateral pollutants, BACT is not required for these pollutants. VOC emissions are > 2 lb/day (>2 lb/yr increase could be >2 lb/day increase on any given day). Therefore, BACT is triggered for VOCs.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore, BACT is not triggered for any pollutant.

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 **Attachment III**), BACT has been satisfied with the following:

VOC: The flare operates smokelessly limited to visible emissions less than 5% opacity except for a period or periods aggregating three minutes or less in any one hour. Flare shall not be operated with continuous and constant flow exceeding 15 consecutive days.

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals 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
Post Project SSPE (SSPE2)	7,426	311	874	33,852	11,663
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds for any the pollutant; therefore offset calculations are not necessary and offsets will not be required for this project.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, 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,
- d. Any project with an SSPE of greater than 20,000 lb/year for any pollutant, and/or
- 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 does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not 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

Pursuant to District Rule 2201, Section 4.5.3, offset requirements shall be triggered on a pollutant-by-pollutant basis, unless exempted pursuant to Section 4.6, offsets shall be required if the post-project Stationary Source Potential to Emit (SSPE2) equals or exceeds specific threshold levels.

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	0	7,426	20,000 lb/year	No
SO _x	0	311	54,750 lb/year	No
PM ₁₀	0	874	29,200 lb/year	No
CO	0	33,852	200,000 lb/year	No
VOC	0	11,663	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	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	7,426	0	7,426	20,000 lb/year	No
SO _x	311	0	311	20,000 lb/year	No
PM ₁₀	874	0	874	20,000 lb/year	No
CO	33,852	0	33,852	20,000 lb/year	Yes
VOC	11,663	0	11,663	20,000 lb/year	No

As demonstrated above, the SSIPE for CO is greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for SSIPE greater than 20,000 lb/year. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATCs for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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:

The sulfur content of gas combusted in the flare shall not exceed 1 gr S/100 scf equivalent to 15.9 ppmv as H₂S. [District Rules 2201 and 4801] N

Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.37 lb-CO/MMBtu; or 0.1068 lb-VOC/MMBtu. [District Rule 2201] N

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) will appear on the permit to operate:

Permittee shall maintain accurate records of flared gas concentration of H₂S. [District Rules 1070 and 2201] N

Permittee shall record annual operating time, material usage, or other information necessary to demonstrate that the potential to emit, for all processes, are less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of NO_x [District Rule 4311] N

The permittee shall maintain all records of emergency and non-emergency operations. Records shall include the date and number of hours of each emergency and non-emergency flaring operation. [District Rules 2201] N

All records required by this permit shall be retained for a minimum of five years and shall be made available to the APCO, ARB, and EPA upon request. [District Rules 2201] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14 of District Rule 2201 requires that an AAQA 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 **Attachment IV** of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for the state's PM10 as well as federal and state PM2.5 thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM10 and PM2.5.

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

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4101 Visible Emissions

Per Section 5.0, 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). Per FYI 83, when BACT is required for PM₁₀ the visible emissions will be limited to less than Ringelmann ¼ and less than 5% opacity. As long as the flaring system (with air assist) is operating correctly, compliance with this rule is expected.

Rule 4102 Nuisance

Section 4.0 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 (**Attachment IV**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-8595-1	5.8E-10	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is above the District’s thresholds for triggering T-BACT requirements.

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

Flare shall only be operated for emergency and maintenance and testing conditions. An emergency is 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, non preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rule 2201, 4102, and 4311] N

Operation of the flare for maintenance and testing purposes shall not exceed 24 hr/yr. [District Rule 2201 and 4102] N

The results of the HRA is included in **Attachment IV**.

Rule 4311 Flares

This rule limits VOC and NOx emissions from flares. The flare is a separate stationary source which has a potential to emit less than 10 tons/yr NOx and 10 tons/yr VOCs. Therefore, the facility is exempt from all requirements of the rule except the record-keeping requirements of Section 6.2.4. Section 6.2.4 states that “beginning January 1, 2007 facilities claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.” Facility will keep records of annual volumes of gas combusted in the flares to ensure that NOx and VOC emissions remain below 10 tons/yr. Therefore, compliance is expected.

Rule 4801 Sulfur Compounds

Rule 4801 requires that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO2), on a dry basis averaged over 15 consecutive minutes. The flare is required to combust gas with a sulfur content not exceeding 1 gr S/100 scf, is currently operating in compliance with the rule, and the project is not expected to affect compliance status. 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

Oil and gas operations in Kern County must comply with the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting*. In 2015, Kern County revised the Kern County Zoning Ordinance Focused on Oil and Gas Activities (Kern Oil and Gas Zoning Ordinance) in regards to future oil and gas exploration, and drilling and production of hydrocarbon resource projects occurring within Kern County.

Kern County served as lead agency for the revision to their ordinance under the California Environmental Quality Act (CEQA), and prepared an Environmental Impact Report (EIR) that was certified on November 9, 2015. The EIR evaluated and disclosed to the public the environmental impacts associated with the growth of oil and gas exploration in Kern County, and determined that such growth will result in significant GHG impacts in the San Joaquin Valley. As such, the EIR included mitigation measures for GHG.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory authority for regulating GHGs. The District has determined that the applicant is responsible for implementing GHG mitigation measures imposed in the EIR by the Kern County for the Kern County Zoning Ordinance.

District CEQA Findings

The proposed project is located in Kern County and is thus subject to the Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting. The Kern County Zoning Ordinance was developed by the Kern County Planning Agency as a comprehensive set of goals, objectives, policies, and standards to guide development, expansion, and operation of oil and gas exploration within Kern County.

In 2015, Kern County revised their *Kern County Zoning Ordinance* in regards to exploration, drilling and production of hydrocarbon resources projects. Kern County, as the lead agency, is the agency that will enforce the mitigation measures identified the EIR, including the mitigation requirements of the Oil and Gas ERA. As a responsible agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CCR §15096). The District has reviewed the EIR prepared by Kern County, the Lead Agency for the project, and finds it to be adequate. The District also prepared a full findings document. The full findings document, *California Environmental Quality Act (CEQA) Statement of Findings for the Kern County Zoning Ordinance EIR* contains the details of the District's findings regarding the Project. The District's implementation of the Kern Zoning Ordinance and its EIR applies to ATC applications received for any new/modified equipment used in oil/gas production in Kern County, including new wells. The full findings applies to the Project and the Project's related activity equipment(s) is covered under the Kern Zoning Ordinance. To reduce project related impacts on air quality, the District evaluates emission controls for the project such as Best Available Control Technology (BACT) under District Rule 2201 (New and Modified Stationary Source Review). In addition, the District is requiring the applicant to surrender emission reduction credits (ERC) for stationary source emissions above the offset threshold.

Thus, the District concludes that through a combination of project design elements, permit conditions, and the Oil and Gas ERA, the project will be fully mitigated to result in no net increase in emissions. Pursuant to CCR §15096, prior to project approval and issuance of ATCs the District prepared findings.

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The revision to the *Kern County Zoning Ordinance* went through an extensive public process that included a Notice of Preparation, a preparation of an EIR, scoping meetings, and public hearings. The process led to the certification of the final EIR and approval of the revised *Kern County Zoning Ordinance* in November 2015 by the Kern County Board of Supervisors. As mentioned above, the proposed project will be fully mitigated and will

result in no net increase in emissions. In addition, the proposed project is not located at a facility of concern; therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-8595-1-2 (**Attachment V**).

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-8595-1-2	3020-02-H	4,550 MMBtu/hr*	\$1,183.00

* $4.375 \text{ MMscf/hr} \times 1,040 \text{ MMBtu/MMscf} = 4,550 \text{ MMBtu/hr}$

Attachments

- I: PTO S-8595-1-1
- II: Emissions Profile
- III: BACT Analysis
- IV: HRA/AAQA
- V: Draft ATC

Attachment I

PTO S-8595-1-1

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-8595-1-1

EXPIRATION DATE: 02/28/2021

SECTION: SW31 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:

4.375 MMSCF/HR AIR ASSIST PACIFIC PROCESS SYSTEMS EMERGENCY FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS FLOW METER (G&W COMPRESSOR SITE)

PERMIT UNIT REQUIREMENTS

1. Flare shall only be operated for emergency purposes. An emergency is 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, non preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rule 2201 and 4311]
2. This unit shall not be operated for maintenance or testing. [District Rules 2201 and 4201]
3. Flare air-assist blower shall not 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). [District Rules 2201]
4. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 2201]
5. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]
6. 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 2201]
7. 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 the presence of at least one pilot flame or the flare flame, shall be installed and operated. [District Rule 2201]
8. The sulfur content of gas combusted in the flare shall not exceed 1 grs/100 scf equivalent to 15.9 ppmv as H₂S. [District Rules 2201 and 4801]
9. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.37 lb-CO/MMBtu; or 0.101 lb-VOC/MMBtu. [District Rule 2201]
10. To show compliance with emission limits, the gas being flared shall be tested after a flaring event for sulfur (ppmv as H₂S) and heat content (Btu/scf). [District Rule 2201]
11. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 1070 and 2201]
12. Permittee shall maintain accurate records of flared gas concentration of H₂S. [District Rules 1070 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Permittee shall record annual operating time, material usage, or other information necessary to demonstrate that the potential to emit, for all processes, are less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of NOx [District Rule 4311]
14. The permittee shall maintain all records of emergency operations. Records shall include the date and number of hours of each emergency flaring operation. [District Rules 2201]
15. All records required by this permit shall be retained for a minimum of five years and shall be made available to the APCO, ARB, and EPA upon request. [District Rules 2201]

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

Attachment II

Emissions Profile

Permit #: S-8595-1-2	Last Updated
Facility: CHEVRON PIPE LINE CO	10/11/2018 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	7426.0	311.0	874.0	33852.0	11663.0
Daily Emis. Limit (lb/Day)	7425.6	311.2	873.6	33852.0	11662.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1856.0	77.0	218.0	8463.0	2915.0
Q2:	1856.0	78.0	218.0	8463.0	2916.0
Q3:	1857.0	78.0	219.0	8463.0	2916.0
Q4:	1857.0	78.0	219.0	8463.0	2916.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Attachment III

BACT Analysis

BACT Analysis

All current BACT Guidelines for flares have been rescinded. Therefore, a project specific BACT analysis will be done for this project.

1. BACT Analyses for VOCs:

a. Step 1 - Identify all control technologies

Low NOx flare or vapor destruction device capable of combusting steady state flows of gas with NOx emissions of 15-25 ppmv @ 3% O₂ and an acceptable VOC destruction efficiency (99%+).

Smokeless combustion with visible emissions less than 5% opacity, except for a period or periods aggregating three minutes or less in any one hour.

b. Step 2 - Eliminate technologically infeasible options

According to the District memorandum "Rule 4311 Flare Minimization and FMP Findings," which reviewed the operational characteristics of several flares in the SJVAPCD and technologies for NOx reduction, low NOx flares have been demonstrated in practice to be feasible if the flow rate to the flare is constant. Low NOx flares are not in use for emergency situations. Flare S-8595-1 combusts gas in response to emergencies. Flared gas flows are expected to be non-constant, erratic with variable flow rate. Therefore, a low NOx flare is not technologically feasible.

c. Step 3 - Rank remaining options by control effectiveness

Smokeless combustion with visible emissions less than 5% opacity, except for a period or periods aggregating three minutes or less in any one hour.

d. Step 4 - Cost effectiveness analysis

Because the applicant is proposing the one listed control technology listed Step 3 above, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

The flare operates smokelessly limited to visible emissions less than 5% opacity except for a period or periods aggregating three minutes or less in any one hour. 19. The ATC includes the following condition reflecting these requirements:

Flare shall operate smokelessly limited to visible emissions less than 5% opacity except for a period or periods aggregating three minutes or less in any one hour. Flare shall not be operated with continuous and constant flow exceeding 15 consecutive days. [District Rule 2201] N

BACT is satisfied.

Attachment IV

HRA/AAQA

San Joaquin Valley Air Pollution Control District

Risk Management Review and Ambient Air Quality Analysis

To: Richard U Edgehill – Permit Services
 From: Will Worthley – Technical Services
 Date: October 04, 2018
 Facility Name: CHEVRON PIPE LINE CO
 Location: G&W SITE, BAKERSFIELD
 Application #(s): S-8595-1-2
 Project #: S-1183406

1. SUMMARY

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-2	403.88	0.00	0.00	5.48E-10	No	Yes
Project Totals	403.88	0.00	0.00	5.48E-10		
Facility Totals	>1	0.00	0.00	5.48E-10		

1.2 AAQA

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	NA		NA		
NO _x	NA				Pass ²
SO _x	NA	NA		NA	Pass ²
PM10				NA	Pass ³
PM2.5				NA	Pass ⁴

Notes:

- Results were taken from the attached AAQA Report.
- The project is an intermittent source as defined in APR-1920. In accordance with APR-1920, compliance with short-term (i.e., 1-hour, 3-hour, 8-hour and 24-hour) standards is not required.
- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
- Modeled PM10 & 2.5 concentrations were below the District SIL for non-fugitive sources of 5 µg/m³ for the 24-hour average concentration and 1 µg/m³ for the annual concentration.

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit #1-2

1. This flare shall be operated only for testing and maintenance, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 24 hours per calendar year.

2. Project Description

Technical Services received a request on October 01, 2018 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -1-2: MODIFICATION OF 4.375 MMSCF/HR AIR ASSIST PACIFIC PROCESS SYSTEMS EMERGENCY FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS FLOW METER (G&W COMPRESSOR SITE): AUTHORIZE 24 HR/YR NONEMERGENCY OPERATION FOR MAINTENANCE AND TESTING

3. RMR REPORT

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

Monitoring Stations

Pollutant	Station Name	County	City	Measurement Year
CO	Bakersfield-Muni	Kern	Bakersfield	2016
NOx	Bakersfield-California Avenue	Kern	Bakersfield	2016
PM10	Bakersfield-California Avenue	Kern	Bakersfield	2016
PM2.5	Bakersfield-California Avenue	Kern	Bakersfield	2016
SOx	Fresno - Garland	Fresno	Fresno	2016

Technical Services performed modeling for directly emitted criteria pollutants with the emission rates below:

Emission Rates (lbs/year)

Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
1	1	7,426	312	33,852	874	874

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2013-2017 from Bakersfield (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Point Source Parameters

Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/Horizontal/Capped
1	NG/WG Flare	40.62	1273	62.84	11.99	Vertical

5. Conclusion

5.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this 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 requirements listed on page 1 of this report must be included for this proposed unit.

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

- Toxic emissions for this proposed unit were calculated using 2001 Ventura County's Air Pollution Control District's emission factors for Natural Gas Fired external combustion and from a refinery gas composition analysis from the 2005 report FINAL REPORT Test of TDA's Direct Oxidation Process for Sulfur Recovery

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Bakersfield (rural dispersion coefficient selected) 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 SHARP Program, which then used 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:

Source Process Rates

Unit ID	Process ID	Process Material	Process Units	Hourly Process Rate	Annual Process Rate
1	1	NG/WG Usage	MMscf	4.38	105

8

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO₂ standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

5.2 AAQA

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

6. Attachments

- A. Modeling request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary
- E. AAQA results

Attachment V

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-8595-1-2

LEGAL OWNER OR OPERATOR: CHEVRON PIPE LINE CO
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: G&W SITE
BAKERSFIELD, CA

SECTION: SW31 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF PIPELINE DEPRESSURIZATION SYSTEM SERVED BY 4,550 MMBTU/HR AIR ASSIST PACIFIC PROCESS SYSTEMS EMERGENCY FLARE WITH AUTOMATIC IGNITION SYSTEM AND GAS FLOW METER (G&W COMPRESSOR SITE): AUTHORIZE 24 HR/YR NONEMERGENCY OPERATION FOR MAINTENANCE AND TESTING, CLARIFY FLARE USE TO PIPELINE DEPRESSURIZATION AND EXPRESS HEAT INPUT RATING IN UNITS OF MMBTU/HR

CONDITIONS

1. Flare shall only be operated for emergency and maintenance and testing conditions. An emergency is 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, non preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency. [District Rule 2201, 4102, and 4311]
2. Flare shall operate smokelessly limited to visible emissions less than 5% opacity except for a period or periods aggregating three minutes or less in any one hour. Flare shall not be operated with continuous and constant flow exceeding 15 consecutive days. [District Rule 2201]
3. Operation of the flare for maintenance and testing purposes shall not exceed 24 hr/yr. [District Rules 2201 and 4102]
4. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 2201]

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.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-8595-1-2 Jan 17 2019 9:57AM - EDG:HLR Joint Inspection NOT Required

5. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]
6. 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 2201]
7. 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 the presence of at least one pilot flame or the flare flame, shall be installed and operated. [District Rule 2201]
8. The sulfur content of gas combusted in the flare shall not exceed 1 gr S/100 scf equivalent to 15.9 ppmv as H₂S. [District Rules 2201 and 4801]
9. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NO_x/MMBtu; 0.008 lb-PM₁₀/MMBtu; 0.37 lb-CO/MMBtu; or 0.1068 lb-VOC/MMBtu. [District Rule 2201]
10. To show compliance with emission limits, the gas being flared shall be tested after a flaring event for sulfur (ppmv as H₂S) and heat content (Btu/scf). [District Rule 2201]
11. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 1070 and 2201]
12. Permittee shall maintain accurate records of flared gas concentration of H₂S. [District Rules 1070 and 2201]
13. Permittee shall record annual operating time, material usage, or other information necessary to demonstrate that the potential to emit, for all processes, are less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of NO_x [District Rule 4311]
14. The permittee shall maintain all records of emergency and non-emergency operations. Records shall include the date and number of hours of each emergency and non-emergency flaring operation. [District Rules 2201]
15. All records required by this permit shall be retained for a minimum of five years and shall be made available to the APCO, ARB, and EPA upon request. [District Rules 2201]

DRAFT