APR 16 2015

Kristopher Rickards
Chevron Pipe Line Company
P O Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-8595
Project Number: S-1144590

Dear Mr. Rickards:

Enclosed for your review and comment is the District’s analysis of Chevron Pipe Line Company’s application for an Authority to Construct for the installation of a 4.375 MMscf/hr emergency flare, at G & W site in Bakersfield, CA.

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. Thom Maslowski of Permit Services at (559) 230-5906.

Sincerely,

[Signature]

Auduaud Marjollet
Director of Permit Services

AM:TM

Enclosures

cc: Mike Tollstrup, CARB (w/ enclosure) via email
San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
New Emergency Flare

Facility Name: Chevron Pipe Line Company
Mailing Address: PO Box 1392
Bakersfield, CA 93302
Contact Person: Kristopher Rickards
Telephone: (661)654-7796
E-Mail: Kristopher.rickards@chevron.com
Application #: S-8595-1-0
Project #: S-1144590
Deemed Complete: 12/31/14

Date: April 15, 2015
Engineer: Thom Maslowski
Lead Engineer: Joven Refuerzo

I. Proposal

Chevron Pipe Line Company (CPL) is requesting an Authority to Construct (ATC) permit to replace the existing permit exempt emergency blowdown unit at G&W compressor station located within the Kern River Oilfield with an emergency flare. The blowdown unit is permit exempt per District Rule 2020 Section 7.2 ‘District Exempt Activities’ and will continue to be permit exempt with this project. The flare will operate solely during emergencies as defined in Rule 4311 §3.7, no non-emergency operating hours are proposed.

The draft ATC is included in Appendix E.

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 flare will be 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 proposed new flare will operate solely as an emergency release device for the gas volume in the pipeline between the G&W site to the next compressor station (approximately 3 MMscf of gas). The existing emergency blowdown unit (pictured below) will be removed and replaced by the proposed flare in the same approximate location.

V. Equipment Listing

S-8959-1-0: 4.375 MMSCF/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 will be 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 VOC combustion efficiency for flares is typically greater than 99%. The gas combusted in the flare has very low sulfur content (1.0 gr S/100 scf maximum, see historical sulfur analyses in Appendix E).

The proposed emergency flare will only operate during an emergency situation as defined by Rule 4311 §3.7 and will not be authorized for operation for testing or maintenance purposes.

VII. General Calculations

A. Assumptions

- Emergency operating schedule: 24 hours/day
- Non-emergency operating schedule: 0 hours/year
- Gas flow rate is 4.375 MMscf/hr (flare unit's physical limitation)
- Gross heating value of produced gas is 1,000 Btu/scf (District Practice for pipeline quality gas)
- Sulfur content of produced gas is less than 1.0 gr-S/100 scf (proposed by applicant)
- EPA F-factor (adjusted to 60 °F) is 8,578 dscf/MMBtu (40 CFR 60 Appendix B)
- Molar specific volume of air is 379.5 scf/lb-mole

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:

<table>
<thead>
<tr>
<th>Emission Factors</th>
<th>lb/MMBtu</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.068</td>
<td>AP-42/FYI-83</td>
</tr>
<tr>
<td>SOx</td>
<td>0.00286†</td>
<td>1.0 gr-S/100 scf &amp; 1,000 Btu/scf</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>0.008*</td>
<td>AP-42/FYI-83-BACT</td>
</tr>
<tr>
<td>CO</td>
<td>0.37</td>
<td>AP-42/FYI-83</td>
</tr>
<tr>
<td>VOC</td>
<td>0.063</td>
<td>AP-42/FYI-83</td>
</tr>
</tbody>
</table>

† $\frac{1.0 \text{ gr} \cdot S}{100 \text{ scf}} \left( \frac{\text{lb}}{7,000 \text{ gr}} \right) \frac{\text{scfu}}{1,000 \text{ Btu}} \left( \frac{10^6 \text{ Btu}}{\text{MMBtu}} \right) 64 \frac{\text{lb} \cdot \text{SO}_2}{32 \text{ lb} \cdot \text{S}} = 0.00286 \frac{\text{lb} \cdot \text{SO}_2}{\text{MMBtu}}$

*Flare triggers and complies with BACT for PM₁₀; therefore, in accordance with FYI 83, the PM₁₀ emissions factor is equal to 0.008 lb/MMBtu.
C. Calculations

1. Pre-Project Potential to Emit (PE1)

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

2. Post Project Potential to Emit (PE2)

The potential to emit for the flare is calculated as follows (based on 4.375 MMscf/hr unit's physical limitation and a gross heat content of the produced gas of 1,000 Btu/scf), and summarized in the table below (annual emissions are not quantified for emissions resulting solely from emergency operation):

\[
\frac{4,375,000 \text{ scf}}{\text{hr}} \left( \frac{24 \text{ hr}}{\text{day}} \right) \left( \frac{1,000 \text{ Btu}}{\text{scf}} \right) \frac{\text{MMBtu}}{10^6 \text{ Btu}} \left( \frac{\text{lb} \cdot \text{EF}}{\text{MMBtu}} \right) \frac{\text{lb} \cdot \text{EF}}{\text{day}}
\]

<table>
<thead>
<tr>
<th>Daily Emissions (lb/day)</th>
<th>Annual Emissions (lb/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{X}</td>
<td>7,140.0</td>
</tr>
<tr>
<td>SO\textsubscript{X}</td>
<td>300.3</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>840.0</td>
</tr>
<tr>
<td>CO</td>
<td>38,850.0</td>
</tr>
<tr>
<td>VOC</td>
<td>6,615.0</td>
</tr>
</tbody>
</table>

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.

Since this is a new facility, there are no valid ATCs, PTOs, or ERCs at the Stationary Source; therefore, the SSPE1 is equal to zero.

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.
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

<table>
<thead>
<tr>
<th>Rule 2201 Major Source Determination (lb/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOX</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>SSPE1</td>
</tr>
<tr>
<td>SSPE2</td>
</tr>
<tr>
<td>Major Source Threshold</td>
</tr>
<tr>
<td>Major Source?</td>
</tr>
</tbody>
</table>

Note: PM2.5 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.

<table>
<thead>
<tr>
<th>PSD Major Source Determination (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO2</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>Estimated Facility PE before Project Increase</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source? (Y/N)</td>
</tr>
</tbody>
</table>

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.

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

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is 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. Additionally, since the facility is not a major source for PM$_{10}$ (140,000 lb/year), it is not a major source for PM$_{2.5}$ (200,000 lb/year).

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)

- NO$_2$ (as a primary pollutant)
- SO$_2$ (as a primary pollutant)
- CO
- PM
• PM10

I. Project Location Relative to Class 1 Area

As 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.

<table>
<thead>
<tr>
<th>PSD Major Source Determination: Potential to Emit (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO2</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Total PE from New and Modified Units</td>
</tr>
<tr>
<td>PSD Major Source threshold</td>
</tr>
<tr>
<td>New PSD Major Source?</td>
</tr>
</tbody>
</table>

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

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

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

As seen in Section VII.C.2 above, the proposed new flare will result in a PE greater than 2 lb/day for NOx, SOx, PM10, CO, and VOC. BACT is triggered for NOx, SOx, PM10, and VOC, since CO emissions have a SSPE of less than 200,000 lbs/year.

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

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

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 any emissions. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

Best Available Control Technology (BACT) Guideline 1.4.2 applies Waste Gas Flare - Incinerating Produced Gas. (See Appendix C)

3. Top-Down BACT Analysis

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

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

NOx: Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable
PM$_{10}$: Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.

SO$_X$: Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.

VOC: Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable

B. Offsets

1. Offset Applicability

Since emergency equipment is exempt from the offset requirements of Rule 2201, per Section 4.6.2, and no nonemergency operation of the flare is proposed, offsets are not required for this flare, and no offset calculations are required.

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 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

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:
Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

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

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE1 (lb/year)</th>
<th>SSPE2 (lb/year)</th>
<th>Offset Threshold</th>
<th>Public Notice Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{X}</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>SO\textsubscript{X}</td>
<td>0</td>
<td>0</td>
<td>54,750 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0</td>
<td>0</td>
<td>29,200 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>0</td>
<td>0</td>
<td>200,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE2 (lb/year)</th>
<th>SSPE1 (lb/year)</th>
<th>SSIPE (lb/year)</th>
<th>SSIPE Public Notice Threshold</th>
<th>Public Notice Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{X}</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>SO\textsubscript{X}</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
<tr>
<td>VOC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000 lb/year</td>
<td>No</td>
</tr>
</tbody>
</table>

As demonstrated in the previous table, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.
e. Title V Significant Permit Modification

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 NO$_x$, SO$_x$, PM10, CO, and VOC emissions in excess of 100 lb/day. 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.

The flare tip's physical capacity is limited to 4.375 MMscf/hr and the daily gas flow rate is limited as follows:

$$4.375 \text{ MMscf/hr} \times 24 \text{ hr/day} = 105 \text{ MMscf/day}$$

**Proposed Rule 2201 (DEL) Conditions:**

- Maximum amount of gas combusted shall not exceed 105 MMscf/day. [District Rule 2201]
- Sulfur content of the natural gas burned shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801]

- 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 0.063 lb-VOC/MMBtu. [District Rule 2201]

- 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]

- This unit shall not be operated for maintenance or testing. [District Rule 2201]
E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

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

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

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

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. After reviewing the information provided in the Risk Management Review request for the proposed flare, Technical Services determined there will be zero emissions in non-emergency use, since the facility proposes no testing and maintenance hours and the installation of an Automatic Ignition System. Therefore, per the Risk Management Review memo (Appendix B), an AAQA will not be required.
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 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.

40 CFR 60.18 refers to control devices such as the proposed emergency flare. This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements only apply to facilities covered by subparts referring to this section. None of the new equipment is covered by subparts which require external control devices and refer to this subpart. Therefore, the emergency flares are not subject to NSPS.

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

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

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). As the flare will combust solely natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity.

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 or equal to one. According to the Technical Services Memo for this project (Appendix B), the total facility prioritization score including this project was less than or equal to one. Therefore, no future analysis is required to determine the impact from this project and 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.

Emissions from the flare are the result of burning gaseous fuel only. Particulate emissions greater than 0.1 gr/dscf are not expected. The following condition will be listed on the permit to ensure compliance with this rule:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

**Rule 4301 Fuel Burning Equipment**

The purpose of this rule is to limit the emission of air contaminants from fuel burning equipment. Fuel burning equipment is defined in the rule as "any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer."

The purpose of the flare is not to produce heat or power by indirect heat transfer; therefore, Rule 4301 does not apply to the flare.

**Rule 4311 Flares**

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares. This rule is applicable to all operations involving the use of flares.

Section 4.3 exempts flare operators with stationary source emissions less than 10.0 tons per year of either VOC or NOx from all sections of the rule except recordkeeping requirements in Section 6.1.4.

Section 6.1 requires operators claiming an exemption pursuant to Section 4.3 to record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.

Since no other permitted equipment exists at this location and the flare does not result in any annual permitted emissions, no recordkeeping is required to maintain this exemption.
Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO$_2$) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

$n$ = moles SO$_2$

$T$ (standard temperature) = 60 °F or 520 °R

$R$ (universal gas constant) = $\frac{10.73 \text{psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{oR}}$

F-Factor for pipeline gas: 1,000 dscf/MMBtu

$$\frac{0.003 \text{lb} - \text{SOx}}{\text{MMBtu}} \times \frac{1 \text{lb} \cdot \text{mol}}{1,000 \text{dscf}} \times \frac{10.73 \text{psi} \cdot \text{ft}^3}{964 \text{lb}} \times \frac{520^\circ \text{R}}{14.7 \text{psi}} \times \frac{1,000,000 \text{ parts}}{\text{million}} = 17.5 \text{ parts/million}$$

Since the SOx concentration is ≤ 2,000 ppmv, the flare is expected to comply with Rule 4801. The following condition will be listed on the ATC to ensure compliance:

- Sulfur content of the natural gas burned shall not exceed 1.0 grains/100 scf. [District Rules 2201 and 4801]

California Health & Safety Code 42301.6 (School Notice)

The 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

District is a Lead Agency & GHG emissions increases are from the combustion of fossil fuel other than jet fuels

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.

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers 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 is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt pursuant to the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-8595-1-0.

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Fee Schedule</th>
<th>Fee Description</th>
<th>Annual Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-8595-1-0</td>
<td>3020-02-H</td>
<td>4,375 MMBtu/hr*</td>
<td>$1,080.00</td>
</tr>
</tbody>
</table>

* 4.375 MMscf/hr x 1,000 MMBtu/MMscf = 4,375 MMBtu/hr

Appendices

A: QNEC
B: RMR
C: BACT Guideline
D: BACT Analysis
E: Draft ATC
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_{quarterly} = \frac{PE2_{annual}}{4 \text{ quarters/year}}
= \frac{0 \text{ lb/year}}{4 \text{ qtr/year}}
= 0 \text{ lb PM}_{10}/\text{qtr}

PE1_{quarterly} = \frac{PE1_{annual}}{4 \text{ quarters/year}}
= \frac{0 \text{ lb/year}}{4 \text{ qtr/year}}
= 0 \text{ lb PM}_{10}/\text{qtr}

<table>
<thead>
<tr>
<th>Quarterly NEC [QNEC]</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE2 (lb/qtr)</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>NOₓ</td>
</tr>
<tr>
<td>SOₓ</td>
</tr>
<tr>
<td>PM_{10}</td>
</tr>
<tr>
<td>CO</td>
</tr>
<tr>
<td>VOC</td>
</tr>
</tbody>
</table>
San Joaquin Valley Air Pollution Control District
Risk Management Review

To: Thom Maslowski – Permit Services
From: Esteban Gutierrez – Technical Services
Date: January 26, 2015
Facility Name: Chevron Pipe Line Company
Location: G&W Compressor, SW/4 Sec 31, T28S, R28E
Application #(s): S-8595-1-0
Project #: S-1144590

A. RMR SUMMARY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Digester Gas Flare (Unit 1-0)</th>
<th>Project Totals</th>
<th>Facility Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritization Score</td>
<td>0.00*</td>
<td>0.00*</td>
<td>0.0</td>
</tr>
<tr>
<td>Acute Hazard Index</td>
<td>N/A</td>
<td>N/A</td>
<td>0.0</td>
</tr>
<tr>
<td>Chronic Hazard Index</td>
<td>N/A</td>
<td>N/A</td>
<td>0.0</td>
</tr>
<tr>
<td>Maximum Individual Cancer Risk</td>
<td>N/A</td>
<td>N/A</td>
<td>0.0</td>
</tr>
<tr>
<td>T-BACT Required?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Permit Conditions?</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A prioritization was not performed after determining there are no emissions to be modeled.

**Proposed Permit Conditions**

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

Unit # 1-0

1. The emergency flare will have 0 hours for testing and maintenance.

B. RMR REPORT

I. Project Description

Technical Services received a request on January 21, 2015, to perform an Ambient Air Quality Analysis 1.67 MMBtu/hr emergency natural gas flare. The applicant is proposing zero hours for testing and maintenance.
II. Analysis

After reviewing the information provided in the Risk Management Review request for the proposed flare, Technical Services determined that since the facility proposes no testing and maintenance hours, as well as, installing an Automatic Ignition System; resulting in zero natural gas emissions in non-emergency usage. Therefore, no further analysis or prioritization was required for this project. Also, an AAQA will not be required.

III. Conclusion

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.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Review of Permitted Emissions
D. Prioritization score w/ Toxic emissions summary
E. HARP Risk Report
F. Facility Summary
Best Available Control Technology (BACT) Guideline 1.4.2
Last Update: 12/31/1998

Waste Gas Flare - Incinerating Produced Gas

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable Pilot Light fired solely on LPG or natural gas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOx</td>
<td>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.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Step 1 - Identify All Possible Control Technologies


**Achieved in Practice**

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable.

Step 2 - Eliminate Technologically Infeasible Options

There are no options to eliminate in this step.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable.

Step 4 - Cost Effectiveness Analysis

There is only one achieved in practice option, and it is being proposed by the applicant. Therefore, a cost-effectiveness analysis is not necessary.

Step 5 - Select BACT

1. Air-assisted burner (pilot does not burn fuel) since steam is unavailable at site.
Top Down BACT Analysis for SOx Emissions

Step 1 - Identify All Possible Control Technologies


Achieved in Practice

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable and a pilot light fired solely on LPG or natural gas

Technologically Feasible

1. Pre-combustion SOx scrubbing system (non-emergency flares only.)

Step 2 - Eliminate Technologically Infeasible Options

Pre-combustion SOx scrubbing system is only applicable to non-emergency flares. The proposed flare is limited to emergency use only; therefore, this option is not applicable to the proposed emergency flare.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable and a pilot light fired solely on LPG or natural gas

Step 4 - Cost Effectiveness Analysis

There is only one achieved in practice option, and it is being proposed by the applicant. Therefore, a cost-effectiveness analysis is not necessary.

Step 5 - Select BACT

Since flared gas for this equipment has a limit of 1 gr-S/100 dscf, this is considered equivalent to natural gas required to fuel the pilot. BACT is then:

1. Air-assisted burner (pilot does not burn fuel) since steam is unavailable at site.
Top Down BACT Analysis for PM10 Emissions

Step 1 - Identify All Possible Control Technologies


Achieved in Practice

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable and a pilot light fired solely on LPG or natural gas

Step 2 - Eliminate Technologically Infeasible Options

There are no options to eliminate in this step.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

2. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable and a pilot light fired solely on LPG or natural gas

Step 4 - Cost Effectiveness Analysis

There is only one achieved in practice option, and it is being proposed by the applicant. Therefore, a cost-effectiveness analysis is not necessary.

Step 5 - Select BACT

Since flared gas for this equipment has a limit of 1 gr-S/100 dscf, this is considered equivalent to natural gas required to fuel the pilot. BACT is then:

1. Air-assisted burner (pilot does not burn fuel) since steam is unavailable at site.
Top Down BACT Analysis for VOC Emissions

Step 1 - Identify All Possible Control Technologies


**Achieved in Practice**

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable.

Step 2 - Eliminate Technologically Infeasible Options

There are no options to eliminate in this step.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Steam assisted or Air-assisted or Coanda effect burner, when steam unavailable.

Step 4 - Cost Effectiveness Analysis

There is only one achieved in practice option, and it is being proposed by the applicant. Therefore, a cost-effectiveness analysis is not necessary.

Step 5 - Select BACT

1. Air- Air-assisted burner (pilot does not burn fuel) since steam is unavailable at site.
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-8595-1-0

LEGAL OWNER OR OPERATOR: CHEVRON PIPE LINE COMPANY
MAILING ADDRESS: P.O. BOX 1392
BAKERSFIELD, CA 93302

LOCATION: G&W SITE
BAKERSFIELD, CA

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)

CONDITIONS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

2. 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 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 2201 and 4311]

3. This unit shall not be operated for maintenance or testing. [District Rules 2201 and 4201]

4. Flare shall be equipped with recording, volumetric flow meters that shall be used to individually monitor and record the volumes of produced gas and pilot gas combusted in this unit. [District Rules 2201]

5. 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]

6. 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.

Seyed Sadredin, Executive Director APCO
7. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]

8. 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]

9. 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]

10. 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]

11. Maximum amount of gas combusted shall not exceed 105.0 MMscf/day. [District Rule 2201]

12. Emission rates from this unit shall not exceed any of the following limits: 0.068 lb-NOx/MMBtu; 0.008 lb-PM10/MMBtu; 0.37 lb-CO/MMBtu; or 0.063 lb-VOC/MMBtu. [District Rule 2201]

13. To show compliance with sulfur emission limits (ppmv as H2S), the gas being flared shall be tested after a flaring event for sulfur content. [District Rule 2201]

14. 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]

15. 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 2201]

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

17. Permittee shall record annual throughput, 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]

18. The permittee shall maintain all records of emergency operations. Records shall include the date and number of hours of each emergency flaring operation and the amount of gas burned. [District Rules 2201]

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