



JAN 06 2020

Mr. Brandon Chang
Chevron USA Inc
PO Box 1392
Bakersfield, Ca 93302

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: S-1128
Project Number: S-1193708

Dear Mr. Chang:

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

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Monitoring Change to Flare

Facility Name:	Chevron USA Inc	Date:	December 26, 2019
Mailing Address:	P O Box 1392 Bakersfield, CA 93302	Engineer:	Richard Edgehill
Contact Person:	Brandon Chang	Lead Engineer:	Richard Karrs
Telephone:	(661) 654-7574		
E-Mail:	Brandonchang@chevron.com		
Application #:	S-1128-934-16		
Project #:	S-1193708		
Deemed Complete:	October 9, 2019		

I. Proposal

Chevron USA Inc. (CUSA) has requested an Authority to Construct (ATC) permit to remove S-1128-934 flare moisture content testing and recordkeeping requirements. Quarterly measurements of moisture content (vol H₂O/vol gas) are used to correct total flared gas volume to dry volume as flared gas limits are expressed as MMdscf/day and MMdscf/yr. However, as the moisture content has been fairly constant, the requirement for frequent testing is burdensome. Furthermore, flared volumes measured as wet gas (wet gas meter readings) have been in compliance with the dry gas volume limits.

The District has approved applicant's request to eliminate moisture content testing. However, annual measurements of flared gas heating value will continue to be required. For consistency with District flare emissions factors, expressed in the units lb/MMBtu, flared gas limits will be expressed as MMBtu/day or MMBtu/yr. The higher heating value measured annually will be used to convert dscf to MMBtu.

The current PTO is included in **Attachment I**.

CUSA operates under a Title V operating permit for S-1128. This modification can be classified as a Title V Significant Modification pursuant to Rule 2520, as there is a relaxation in monitoring conditions, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA commend period will be satisfied prior to the issuance of the Authority to Construct. CUSA must apply to administratively amend the Title V permit.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (8/15/19)

Rule 2410 Prevention of Significant Deterioration (6/16/11) – **not applicable**, not
NSR Modification and no change in emissions
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (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 is located at the 31X Oil Cleaning Plant within Section 31, Township 29S, Range 22E of the Kern County Heavy Oil Western stationary source. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is **not** applicable to this project.

IV. Process Description

In TEOR operations, steam is injected into the production zone to reduce the crude oil's viscosity and to pressurize the oil-bearing strata which facilitates oil flow to the well bore. Produced fluids are then piped to surface facilities for processing and temporary storage. The subject wells currently all operate with closed well casing vents. In this mode of operation, gas that would otherwise be vented through the casing vent system is entrained in the oil and water production stream. The majority of the entrained gas separates from the liquid stream in front-line storage tanks or other low-pressure front-line equipment. Consequently, production from the proposed closed casing vents is routed to front-line tanks that are vented to an approved vapor collection and control system achieving 99%. If gas cannot be vented to a vapor control system, the gas will be flared.

Proposed Modifications

Flared gas volumetric limits (MMscf/day, MMscf/yr) will be replaced by heat input limits (MMBtu/day, MMBtu/yr). Annual testing of higher heating value of flared gas will be required.

V. Equipment Listing

Pre-Project Equipment Description:

PTO S-1128-934-14: 14.8 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS/LPG
PILOT INCINERATING PRODUCED GAS

Proposed Modification:

ATC S-1128-934-16: MODIFICATION OF 14.8 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS/LPG PILOT INCINERATING PRODUCED GAS: DELETE REFERENCE TO PILOT EMISSIONS, REVISE FLARED GAS EMISSIONS FACTORS

Post Project Equipment Description:

S-1128-934-14: 14.8 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS/LPG PILOT INCINERATING PRODUCED GAS

VI. Emission Control Technology Evaluation

No change to Emissions Control Technology is proposed.

VII. General Calculations

A. Assumptions

- The potential to emit from the proposed flare is based on the consumption of pilot, purge and waste gas for 24 hours per day, 365 days per year.
- The waste gas sulfur limit (as S) is 30,000 ppm (permit).
- Pilot and purge gas flow (natural gas): 20,000 scf/day (current permit limit)
- Pilot and purge gas flow (LPG): 5,580 scf/day (153.8 gal/day)
- Heating value of 91,500 Btu/gal (0.0915 MMBtu/gal) for propane (AP-42, Section 1.5, 10/96).
- Flare emissions limits expressed as MMBtu/day and MMBtu/yr are calculated using volumetric limits of 419,000 dscf/day and 2,500,800 dscf/yr included on the current PTO
- Higher heating value of waste gas is 800 Btu/scf (applicant data).
- The heating value of pilot/purge natural gas is 1000 Btu/scf.
- Pilot SO_x emissions based on propane combustion (worst case)
- The project is not a NSR Modification (please see Compliance Section). Therefore, formal calculations are not required. PE2 = PE1 will be recalculated for inclusion in the PAS emissions profile.

B. Emission Factors

Current PTO

Pollutant	lb/MMBtu
NOx	54.4 lb/MMscf
SOx	30,000 ppmv (as H2S) in flared gas, 6.33 lb SO ₂ /MMBtu
PM10	6.4 lb/MMscf
CO	248.0 lb/MMscf
VOC	44.8 lb/MMBtu

*30,000 scf H₂S/10⁶ scf gas x lbmol H₂S/379 scf H₂S x lbmol SO₂/lbmol H₂S
x 64 lb SO₂/lbmol SO₂ x scf/0.000800 MMBtu = 6.33 lb SO₂/MMBtu

Pre- and Post-Project Waste Gas and Pilot Emissions Factors

NOx: 54.4 lb/MMscf x MMscf/800 MMBtu = 0.068 lb/MMBtu
 SOx: 30,000 ft³/10⁶ ft³ (waste gas as H₂S), 0.0164 lb/MMBtu (propane pilot)
 PM10: 6.4 lb/MMscf x MMscf/800 MMBtu = 0.008 lb/MMBtu
 CO: 248.0 lb/MMscf x MMscf/800 MMBtu = 0.31 lb/MMscf
 VOC: 44.8 lb/MMBtu x MMscf/800 MMBtu = 0.056 lb/MMscf

C. Calculations

The emission rates for the natural gas/propane-fired pilot are as follows:

Pilot/Purge Gas Emissions

NOx: 0.068 lb/MMBtu x 1000 MMBtu/MMscf x 0.02 MMscf/day = 1.4 lb/day, 496 lb/yr
 SOx: 0.0164 lb/MMBtu x 0.0915 MMBtu/gal 153.8 gal/day = 0.23 lb/day, 84 lb/yr
 PM10: 0.008 lb/MMBtu x 1000 MMBtu/MMscf x 0.02 MMscf/day = 0.16 lb/day, 58 lb/yr
 CO: 0.31 lb/MMBtu x 1000 MMBtu/MMscf x 0.02 MMscf/day = 6.2 lb/day, 2,263 lb/yr
 VOC: 0.056 lb/MMBtu x 1000 MMBtu/MMscf x 0.02 MMscf/day = 1.12 lb/day, 409 lb/yr

Daily and Annual Flow Limits for Flare

0.419 MMdscf/day x 800 MMBtu/MMscf = 335.2 MMBtu/day (14.0 MMBtu/hr)
 2.500800 MMdscf/yr x 800 MMBtu/MMscf = 2000.6 MMBtu/yr

Gas Pilot: 0.020 MMscf/day x 1000 MMBtu/MMscf = 20 MMBtu/day
 Heat Input Rating: (335.2 + 20 MMBtu/day)/24 hr/day = 14.8 MMBtu/hr

Flared Gas Emissions

NO_x: 0.068 lb/MMBtu x 335.2 MMBtu/day = 22.8 lb/day
 SO_x: 6.33 lb SO₂/MMBtu x 335.2 MMBtu/day = 2121.8 lb/day
 PM₁₀: 0.008 lb/MMBtu x 335.2 MMBtu/day = 2.68 lb/day
 CO: 0.31 lb/MMBtu x 335.2 MMBtu/day = 103.9 lb/day
 VOC: 0.056 lb/MMBtu x 335.2 MMBtu/day = 18.8 lb/day

NO_x: 0.068 lb/MMBtu x 2000.6 MMBtu/yr = 136 lb/yr
 SO_x: 6.33 lb SO₂/MMBtu x 2000.6 MMBtu/yr = 12,664 lb/yr
 PM₁₀: 0.008 lb/MMBtu x 2000.6 MMBtu/yr = 16 lb/yr
 CO: 0.31 lb/MMBtu x 2000.6 MMBtu/yr = 620 lb/yr
 VOC: 0.056 lb/MMBtu x 2000.6 MMBtu/yr = 112 lb/day

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

Post-Project Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	1.4 + 22.8 = 24.2	496 + 136 = 632
SO _x	0.23 + 2121.8 = 2122.0	84 + 12,664 = 12,748
PM ₁₀	0.16 + 2.68 = 2.8	58 + 16 = 74
CO	6.2 + 103.9 = 110.1	2,263 + 620 = 2,883
VOC	1.12 + 18.8 = 19.9	409 + 112 = 521

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

Rule 2201 defines a modification as an action including at least one of the following items:

Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

There are no proposed changes to in hours of operation, production rate, or method of operation for the flare.

Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions.

There are no structural changes to the flare proposed.

An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

There is no increase in emissions.

Addition of any new emissions unit which is subject to District permitting requirements.

There are no new emissions units.

A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Not applicable.

The project is not subject to Rule 2201 as it is not a NSR Modification.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is not a Minor Modification to the Title V Permit.

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions. The monitoring method will no longer include moisture monitoring, which is a relaxation in monitoring conditions. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATC(s)] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

The Title V Compliance Certification Form is included in **Attachment III**.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).

The flare is expected to operate in a smokeless manner. Also, based on past inspections of the facility, continued compliance is expected.

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

Rule 4311 Flares

This rule limits VOC, NO_x, and SO_x emissions from flares. The flare is currently operating in compliance with the rule and continued compliance is expected.

Rule 4801 Sulfur Compounds

This rule contains a limit on sulfur compounds. The limit at the point of discharge is 0.2 percent by volume, 2000 ppmv, calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes.

There are no emissions increases associated with this project. The flare is expected to continue to operate within compliance of District Rule 4801.

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. Issue ATC S-1128-934-16 subject to the permit conditions on the attached draft ATC in **Attachment IV**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1128-934-16	3020-2-G	14.0 MMBtu/hr	\$ 980

Attachments

- I: Current PTO
- II: Emissions Profile
- III: Title V Compliance Certification Form
- IV Draft ATC

Attachment I
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1128-934-14

EXPIRATION DATE: 02/28/2021

SECTION: 31 TOWNSHIP: 29S RANGE: 22E

EQUIPMENT DESCRIPTION:

14.8 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS/LPG PILOT INCINERATING PRODUCED GAS

PERMIT UNIT REQUIREMENTS

1. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
2. Demonstration of compliance with the visible emissions limit of this permit shall be conducted using EPA Method 22. Upon District request, a two hour observation shall be conducted. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. The observation period shall be 15 minutes. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
6. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
7. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
8. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
9. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
10. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
12. If flare is not operating, gas shall not be vented to the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Gas flow rate to flare, except pilot and purge gas, shall not exceed 419,000 dscf per day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Gas flow rate to flare, except pilot and purge gas, shall not exceed 2,500,800 dscf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined daily flow rate of pilot and purge gas shall not exceed 20,000 dscf of natural gas per day or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
16. Concentration of sulfur (as H₂S) in gas flared shall not exceed 30,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Flare shall not be operated continuously for more than 30 consecutive days. Flare is not continuous when flaring has ceased for three (3) or more consecutive hours. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H₂S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM₁₀: 6.4 lb/MMscf; NO_x (as NO₂): 54.4 lb/MMscf; VOC: 44.8 lb/MMscf; or CO: 248.0 lb/MMscf. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emission rate from natural gas pilot and purge gas shall not exceed any of the following: NO_x (as NO₂) - 0.068 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.008 lb/MMBtu, CO - 0.310 lb/MMBtu, or VOC - 0.056 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
22. Emission rate from LPG/propane pilot and purge gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
23. If the flare's actual NO_x emissions exceed 593 lb-NO_x per calendar year, the permittee must report to the District the annual NO_x emissions as calculated pursuant to paragraph 40 CFR 51.165(a)(6)(iii) and any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection). Such information must be submitted to the District for a period of 5 calendar years beginning the year of operation under ATC S-1128-934-14 and shall be submitted within 60 days of the end of each calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
24. If the flare's actual VOC emissions exceed 488 lb-VOC per calendar year, the permittee must report to the District the annual VOC emissions as calculated pursuant to paragraph 40 CFR 51.165(a)(6)(iii) and any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection). Such information must be submitted to the District for a period of 5 calendar years beginning the year of operation under ATC S-1128-934-14 and shall be submitted within 60 days of the end of each calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Permittee shall maintain daily and annual records of pilot and purge gas flow volumes (LPG/propane and natural gas), daily and annual records of wet and calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit

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

Attachment II Emissions Profile

Permit #: S-1128-934-16 Last Updated
Facility: CHEVRON USA INC 12/05/2019 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):	632.0	12748.0	74.0	2883.0	521.0
Daily Emis. Limit (lb/Day)	124.2	2122.0	2.8	110.1	19.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
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
Title V Compliance Certification Form



San Joaquin Valley Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

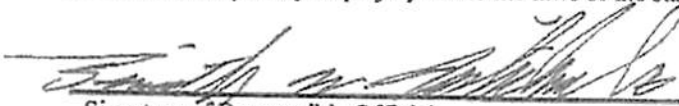
- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

COMPANY NAME: Chevron U.S.A., Inc.		FACILITY ID: S-1128
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility		
2. Owner's Name: Chevron U.S.A., Inc.		
3. Agent to the Owner: NA		

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial applicable circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.
- For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



 Signature of Responsible Official

10/3/19

 Date

Timothy Nishikubo

 Name of Responsible Official (please print)

Cymric/Mckittrick Facilities Operations
 Supervisor

 Title of Responsible Official (please print)

ATTACHMENT IV
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1128-934-16

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY

SECTION: 31 TOWNSHIP: 29S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 14.8 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS/LPG PILOT INCINERATING
PRODUCED GAS: DELETE QUARTERLY MONITORING OF FLARED GAS MOISTURE CONTENT, REVISE FLARED
GAS EMISSIONS FACTORS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {649} Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
4. Demonstration of compliance with the visible emissions limit of this permit shall be conducted using EPA Method 22. Upon District request, a two hour observation shall be conducted. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
5. This flare shall be inspected every two weeks while in operation for visible emissions. The observation period shall be 15 minutes. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

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Arnaud Marjolle, Director of Permit Services

S-1128-934-16 Dec 10 2019 11:07AM - EDGEHLR Joint Inspection NOT Required

6. {652} The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. {654} Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
8. The higher heating value (hhv) of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
9. {657} Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
10. {658} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
11. {659} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
12. {660} The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
13. {661} Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
14. If flare is not operating, gas shall not be vented to the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas flow rate to flare shall not exceed 335.2 MMBtu per day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Gas flow rate to flare shall not exceed 2,000.6 MMBtu per year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined daily flow rate of pilot and purge gas shall not exceed 20,000 dscf of natural gas per day or 5,580 scf/day (153.8 gal/day) of liquefied petroleum gas (LPG). [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit
18. Concentration of sulfur (as H₂S) in gas flared shall not exceed 30,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Flare shall not be operated continuously for more than 30 consecutive days. Flare is not continuous when flaring has ceased for three (3) or more consecutive hours. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H₂S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM₁₀: 0.008 lb/MMBtu; NO_x (as NO₂): 0.068 lb/MMBtu; VOC: 0.056 lb/MMBtu; or CO: 0.31 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emission rate from natural gas pilot and purge gas shall not exceed any of the following: NO_x (as NO₂) - 0.068 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.008 lb/MMBtu, CO - 0.310 lb/MMBtu, or VOC - 0.056 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit

23. Emission rate from LPG/propane pilot and purge gas shall not exceed any of the following: NO_x (as NO₂) - 0.14 lb/MMBtu, SO_x - 0.0164 lb/MMBtu, PM₁₀ - 0.0077 lb/MMBtu, CO - 0.082 lb/MMBtu, and VOC - 0.0087 lb/MMBtu. [District Rule 2020] Federally Enforceable Through Title V Permit
24. If the flare's actual NO_x emissions exceed 593 lb-NO_x per calendar year, the permittee must report to the District the annual NO_x emissions as calculated pursuant to paragraph 40 CFR 51.165(a)(6)(iii) and any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection). Such information must be submitted to the District for a period of 5 calendar years beginning the year of operation under ATC S-1128-934-14 and shall be submitted within 60 days of the end of each calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. If the flare's actual VOC emissions exceed 488 lb-VOC per calendar year, the permittee must report to the District the annual VOC emissions as calculated pursuant to paragraph 40 CFR 51.165(a)(6)(iii) and any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection). Such information must be submitted to the District for a period of 5 calendar years beginning the year of operation under ATC S-1128-934-14 and shall be submitted within 60 days of the end of each calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Permittee shall maintain daily and annual records of combined daily and annual heat input to the pilot/purge and flare (MMBtu/day, MMBtu/yr), calculated using daily and annual flow rates of pilot/purge gas and flare gas (dscf/day, dscf/yr) and hhvs of pilot/purge gas and flared gas, and annual records of pilot/purge gas and flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District Rules 2020 and 2201] Federally Enforceable Through Title V Permit

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