



AUG 26 2015

Lance Ericksen
Chevron USA Inc.
PO Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: C-2885
Project Number: C-1130364

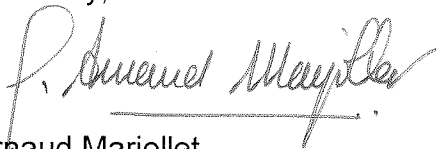
Dear Mr. Ericksen:

Enclosed for your review and comment is the District's analysis of Chevron USA Inc.'s application for Emission Reduction Credits (ERCs) resulting from the shutdown of two natural gas-fired engines powering compressors, at the Coalinga Nose unit in Fresno County. The quantity of ERCs proposed for banking is 137 lb-NOx/yr, 4 lb-SOx/yr, 125 lb-PM10/yr, 7,063 lb-CO/yr, 71 lb-VOC/yr and 161 metric tons-CO2e/yr.

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 comment period, the District intends to issue the ERCs. 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. Steve Roeder of Permit Services at (661) 392-5615.

Sincerely,



Arnaud Marjollet
Director of Permit Services

AM:SR

Enclosures

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

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**San Joaquin Valley Air Pollution Control District
ERC Application Review
Shutdown of Two Internal Combustion Engines**

Facility Name: Chevron USA, Inc Date: August 10, 2015
Mailing Address: PO Box 1392 Engineer: Steve Roeder
Lead Engineer: Richard Karrs
Bakersfield, CA 93302

Contact Person: Lance Ericksen @ (661) 654-7145

Facility ID: C-2885

Project #: C-1130364

Submitted: February 15, 2013

Deemed Complete: January 16, 2014

I. Summary

The primary business of Chevron is the production of oil and natural gas.

Chevron has shutdown Coalinga Engines C-2885-49 and -53, on 4/11/12 and 8/5/11, respectively. The operating permits have been surrendered.

Chevron proposes to bank the emission reductions for criteria pollutants (NO_x, SO_x, CO, PM₁₀ and VOC) and greenhouse gasses (GHG) (CO₂, CH₄ and N₂O). The natural gas-fired IC engines were used to power natural gas compressors. The following emission reductions qualify for banking. See the operating permits in Appendix A.

| Bankable Criteria ERCs (lb/quarter) ERC C-1372 | | | | | |
|--|-----------------|-----------------|------------------|-------|-----|
| | NO _x | SO _x | PM ₁₀ | CO | VOC |
| 1st Quarter | 27 | 1 | 26 | 1,473 | 14 |
| 2nd Quarter | 70 | 2 | 61 | 3,471 | 36 |
| 3rd Quarter | 23 | 1 | 29 | 1,533 | 12 |
| 4th Quarter | 17 | 0 | 9 | 586 | 9 |

| Bankable GHG ERCs (metric tons/year) | |
|--------------------------------------|-----|
| GHG | 161 |

II. Applicable Rules

- Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
- Rule 2301 Emission Reduction Credit Banking (1/19/12)
- Rule 4201 Particulate Matter Concentration (12/17/92)
- Rule 4701 Internal Combustion Engines - Phase 1 (8/21/03)
- Rule 4702 Internal Combustion Engines (8/18/11)

III. Location of Reduction

The engines were located in the Coalinga Nose Unit in the Coalinga Oilfield in Fresno County, Section 7, Township 20S, Range 16E, near Coalinga, CA.

IV. Method of Generating Reductions

The method of emission reductions is the permanent shut down of two natural-gas fired compressor engines, permits C-2885-49 and -53. The engines ceased operating on 8/6/11 and 4/11/12, and the permits were cancelled on 8/27/12. The shutdown of these engines followed the shutdown of engine C-2885-57. All three of the compressor engines have been removed from the site and no other engines or electric motors are being used to compress the gas.

Chevron had banked ERCs from the first of the three engines (C-2885-57) during project C-1111565. According to the applicant, the Coalinga Nose Unit gas production has declined and can no longer produce gas.

V. Calculations

A. Assumptions

- Fuel use records have been provided by the applicant
- Emissions are based on fuel-use data and emission factors

B. Emission Factors

District Rule 2201, defines “actual emissions” as follows:

Actual Emissions: emissions having occurred from a source, based on source test or monitoring data, actual fuel consumption, and process data. If source test or monitoring data is not available, other appropriate, APCO-approved, emission factors may be used.

The applicant has provided source test data for NO_x, SO_x, CO and VOC, which are all lower than the permitted emission factors for each engine.

Since the engines had not been tested for PM₁₀ emissions, the District must consider using the permitted emission factor of 0.064 g/hp-hr. In order to determine if that number is accurate, it has been compared to the emission factor in EPA AP-42, Table 3.2-3, which is 0.01941 lb/MMBtu. According to the following calculation, the numbers are the same.

$$\frac{0.064 \text{ g} \cdot \text{PM}_{10}}{\text{hp} \cdot \text{hr}} \times \frac{1 \text{ lb}}{453.6 \text{ g}} \times \frac{\text{hp} \cdot \text{hr}}{2,546.5 \text{ Btu}} \times \frac{0.35\% \text{ hp}_{out}}{\text{hp}_{in}} \times \frac{1,000,000}{\text{MM}} = 0.0194 \frac{\text{lb} \cdot \text{PM}_{10}}{\text{MMBtu}}$$

Since the AP-42 emission factor has been derived from the testing of many natural gas-fired engines, it is considered to be accurate and shall be used in the proceeding calculations.

Finally, the CO₂e emission factor is taken from the District’s Spreadsheet “ARB – Greenhouse Gas Emission Factors,” and is converted into lb/MMBtu in the following table.

| GHG Natural Gas Emission Factors | | | | | |
|----------------------------------|------------|---------------|-------|----------------------|----------|
| Pollutant | kg/MMBtu x | 2.205 lb/kg x | GWP = | CO ₂ e EF | |
| CO ₂ | 52.87 | 2.205 | 1.00 | 116.578 | lb/MMBtu |
| CH ₄ | 0.0009 | 2.205 | 21.00 | 0.0417 | lb/MMBtu |
| N ₂ O | 0.0001 | 2.205 | 310.0 | 0.0684 | lb/MMBtu |
| Total CO ₂ e | | | | 117 | lb/MMBtu |

The emission factors for calculating the HAE of each engine are presented in following table.

| Emission Factors (lb/MMBtu) | | |
|-----------------------------|-----------|-----------|
| | C-2885-49 | C-2885-53 |
| NO _x | 0.0382 | 0.0013 |
| SO _x | 0.0008 | 0.0007 |
| PM ₁₀ | 0.0194 | 0.0194 |
| CO | 1.2605 | 0.8834 |
| VOC | 0.0205 | 0.00026 |
| CO ₂ e | 117 | 117 |

C. Baseline Period Determination

Pursuant to Rule 2201, the Baseline Period is a period of time equal to either:

The two consecutive years of operation immediately prior to the submission date of the Complete Application; or

At least two consecutive years within the five years immediately prior to the submission date of the Complete Application if determined by the APCO as more representative of normal source operation.

Chevron has banked ERCs from the shutdown of the first engine in the Coalinga Nose Unit Compressor Station (C-2885-57) in Project C-1111565. In order to preclude any load-shifting, the District has determined that the same baseline period shall be used for this project. The baseline period is May, 2008 through April, 2010 (see project C-1111565).

D. Baseline Data

The baseline fuel-use data has been supplied by the applicant (see Appendix C), and is presented as quarterly averages for each engine in the following table.

| Quarterly Baseline Fuel-Use (MMBtu) | | |
|-------------------------------------|-----------|-----------|
| | C-2885-49 | C-2885-53 |
| Quarter 1 | 690 | 683 |
| Quarter 2 | 1,770 | 1,404 |
| Quarter 3 | 566 | 928 |
| Quarter 4 | 456 | 12 |
| Annual Total | 3,482 | 3,027 |

E. Historical Actual Emissions (HAE)

The HAE for the engine are determined by multiplying the quarterly fuel-use by the emission factors presented above, as shown in the following tables.

1. C-2885-49

| HAE from Fuel Use Quarter 1 | | | | | | |
|-----------------------------|--------|------------|-----|-------------|-----|--------|
| NO _x | 0.0382 | lb/MMBtu x | 690 | MMBtu/qtr = | 26 | lb/qtr |
| SO _x | 0.0008 | lb/MMBtu x | 690 | MMBtu/qtr = | 1 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 690 | MMBtu/qtr = | 13 | lb/qtr |
| CO | 1.2605 | lb/MMBtu x | 690 | MMBtu/qtr = | 870 | lb/qtr |
| VOC | 0.0205 | lb/MMBtu x | 690 | MMBtu/qtr = | 14 | lb/qtr |

| HAE from Fuel Use Quarter 2 | | | | | | |
|-----------------------------|--------|------------|-------|-------------|-------|--------|
| NO _x | 0.0382 | lb/MMBtu x | 1,770 | MMBtu/qtr = | 68 | lb/qtr |
| SO _x | 0.0008 | lb/MMBtu x | 1,770 | MMBtu/qtr = | 1 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 1,770 | MMBtu/qtr = | 34 | lb/qtr |
| CO | 1.2605 | lb/MMBtu x | 1,770 | MMBtu/qtr = | 2,231 | lb/qtr |
| VOC | 0.0205 | lb/MMBtu x | 1,770 | MMBtu/qtr = | 36 | lb/qtr |

| HAE from Fuel Use Quarter 3 | | | | | | |
|-----------------------------|--------|------------|-----|-------------|-----|--------|
| NO _x | 0.0382 | lb/MMBtu x | 566 | MMBtu/qtr = | 22 | lb/qtr |
| SO _x | 0.0008 | lb/MMBtu x | 566 | MMBtu/qtr = | 0 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 566 | MMBtu/qtr = | 11 | lb/qtr |
| CO | 1.2605 | lb/MMBtu x | 566 | MMBtu/qtr = | 713 | lb/qtr |
| VOC | 0.0205 | lb/MMBtu x | 566 | MMBtu/qtr = | 12 | lb/qtr |

| HAE from Fuel Use Quarter 4 | | | | | | |
|-----------------------------|--------|------------|-----|-------------|-----|--------|
| NO _x | 0.0382 | lb/MMBtu x | 456 | MMBtu/qtr = | 17 | lb/qtr |
| SO _x | 0.0008 | lb/MMBtu x | 456 | MMBtu/qtr = | 0 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 456 | MMBtu/qtr = | 9 | lb/qtr |
| CO | 1.2605 | lb/MMBtu x | 456 | MMBtu/qtr = | 575 | lb/qtr |
| VOC | 0.0205 | lb/MMBtu x | 456 | MMBtu/qtr = | 9 | lb/qtr |

The HAE for GHG is expressed in metric tons per year as follows:

$$CO_2e \text{ HAE} = \frac{3,482 \text{ MMBtu}}{\text{year}} \times \frac{117 \text{ lb}}{\text{MMBtu}} \times \frac{1 \text{ Metric Ton}}{2,205 \text{ lb}} = 185 \frac{\text{metric tons}}{\text{year}}$$

2. C-2885-53

| HAE from Fuel Use Quarter 1 | | | | | | |
|-----------------------------|---------|------------|-----|-------------|-----|--------|
| NO _x | 0.0013 | lb/MMBtu x | 683 | MMBtu/qtr = | 1 | lb/qtr |
| SO _x | 0.0007 | lb/MMBtu x | 683 | MMBtu/qtr = | 0 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 683 | MMBtu/qtr = | 13 | lb/qtr |
| CO | 0.8834 | lb/MMBtu x | 683 | MMBtu/qtr = | 603 | lb/qtr |
| VOC | 0.00026 | lb/MMBtu x | 683 | MMBtu/qtr = | 0 | lb/qtr |

| HAE from Fuel Use Quarter 2 | | | | | | |
|-----------------------------|---------|------------|-------|-------------|-------|--------|
| NO _x | 0.0013 | lb/MMBtu x | 1,404 | MMBtu/qtr = | 2 | lb/qtr |
| SO _x | 0.0007 | lb/MMBtu x | 1,404 | MMBtu/qtr = | 1 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 1,404 | MMBtu/qtr = | 27 | lb/qtr |
| CO | 0.8834 | lb/MMBtu x | 1,404 | MMBtu/qtr = | 1,240 | lb/qtr |
| VOC | 0.00026 | lb/MMBtu x | 1,404 | MMBtu/qtr = | 0 | lb/qtr |

| HAE from Fuel Use Quarter 3 | | | | | | |
|-----------------------------|---------|------------|-----|-------------|-----|--------|
| NO _x | 0.0013 | lb/MMBtu x | 928 | MMBtu/qtr = | 1 | lb/qtr |
| SO _x | 0.0007 | lb/MMBtu x | 928 | MMBtu/qtr = | 1 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 928 | MMBtu/qtr = | 18 | lb/qtr |
| CO | 0.8834 | lb/MMBtu x | 928 | MMBtu/qtr = | 820 | lb/qtr |
| VOC | 0.00026 | lb/MMBtu x | 928 | MMBtu/qtr = | 0 | lb/qtr |

| HAE from Fuel Use Quarter 4 | | | | | | |
|-----------------------------|---------|------------|----|-------------|----|--------|
| NO _x | 0.0013 | lb/MMBtu x | 12 | MMBtu/qtr = | 0 | lb/qtr |
| SO _x | 0.0007 | lb/MMBtu x | 12 | MMBtu/qtr = | 0 | lb/qtr |
| PM ₁₀ | 0.0194 | lb/MMBtu x | 12 | MMBtu/qtr = | 0 | lb/qtr |
| CO | 0.8834 | lb/MMBtu x | 12 | MMBtu/qtr = | 11 | lb/qtr |
| VOC | 0.00026 | lb/MMBtu x | 12 | MMBtu/qtr = | 0 | lb/qtr |

The HAE for GHG is expressed in metric tons per year as follows:

$$CO_2e \text{ HAE} = \frac{3,027 \text{ MMBtu}}{\text{year}} \times \frac{117 \text{ lb}}{\text{MMBtu}} \times \frac{1 \text{ Metric Ton}}{2,205 \text{ lb}} = 161 \frac{\text{metric tons}}{\text{year}}$$

3. Total HAE

The HAE from both engines are added together in the following tables.

| Total HAE - Quarter 1 (lb) | | | |
|----------------------------|-----------|-----------|-------|
| Pollutant | C-2885-49 | C-2885-53 | Total |
| NO _x | 26 | 1 | 27 |
| SO _x | 1 | 0 | 1 |
| PM ₁₀ | 13 | 13 | 26 |
| CO | 870 | 603 | 1,473 |
| VOC | 14 | 0 | 14 |

| Total HAE - Quarter 2 (lb) | | | |
|----------------------------|-----------|-----------|-------|
| Pollutant | C-2885-49 | C-2885-53 | Total |
| NO _x | 68 | 2 | 70 |
| SO _x | 1 | 1 | 2 |
| PM ₁₀ | 34 | 27 | 61 |
| CO | 2,231 | 1,240 | 3,471 |
| VOC | 36 | 0 | 36 |

| Total HAE - Quarter 3 (lb) | | | |
|----------------------------|-----------|-----------|-------|
| Pollutant | C-2885-49 | C-2885-53 | Total |
| NO _x | 22 | 1 | 23 |
| SO _x | 0 | 1 | 1 |
| PM ₁₀ | 11 | 18 | 29 |
| CO | 713 | 820 | 1,533 |
| VOC | 12 | 0 | 12 |

| Total HAE - Quarter 4 (lb) | | | |
|----------------------------|-----------|-----------|-------|
| Pollutant | C-2885-49 | C-2885-53 | Total |
| NO _x | 17 | 0 | 17 |
| SO _x | 0 | 0 | 0 |
| PM ₁₀ | 9 | 0 | 9 |
| CO | 575 | 11 | 586 |
| VOC | 9 | 0 | 9 |

The total HAE for GHG is calculated as follows:

$$CO_2e \text{ HAE} = \frac{185 \text{ Metric tons}}{\text{year}} + \frac{161 \text{ Metric Tons}}{\text{year}} = 346 \frac{\text{Metric Tons}}{\text{year}}$$

F. Adjustments to HAE

1. Rule 2201 - New and Modified Stationary Source Review Rule

Pursuant to Section 3.22, HAE must be discounted for any emissions reduction which is:

- Required or encumbered by any laws, rules, regulations, agreements, orders, or
- Attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- Proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.
- Any Actual Emissions in excess of those required or encumbered by any laws, rules, regulations, orders, or permits. For units covered by a Specific Limiting Condition (SLC), the total overall HAE for all units covered by SLC must be discounted for any emissions in excess of that allowed by the SLC.
 - a. There are no agreements or orders regarding the operation or emissions reductions associated with the engine. The discounts for any Rules will be discussed under the applicable Rules listed below. Therefore, no adjustments will be made to the HAE under this section.
 - b. There are no reductions from the engine that are attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan. Therefore, no adjustment to the HAE will be made in this section.
 - c. There are no reductions for engines proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act. Therefore, no adjustments will be made to the HAE under this section.
 - d. There are no SLCs related to the operation of the engine. In addition, the fuel-use did not exceed the permitted maximum daily use (full-power, full-time operation for fuel use)) for any month represented. Therefore, no adjustments will be made to the HAE under this section.

The engines have undergone permitting under Rule 2201 and EPA review under Title V. The permit complied with all NSR and Federal Requirements. No adjustments to the HAE are necessary under Rule 2201.

2. Rule 4201 - Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

The maximum particulate matter concentration is calculated for the engines as follows.

Assumptions

| | |
|--|---|
| F-Factor for NG: | 8,578 dscf/MMBtu |
| PM ₁₀ Emission Factor: | 0.0194 lb-PM ₁₀ /MMBtu |
| Percentage of PM as PM ₁₀ in Exhaust: | 100% |
| Exhaust Oxygen (O ₂) Concentration: | 15% |
| Heat input: | $\frac{600 \text{ hp}}{35\%} \times \frac{2,543 \text{ Btu}}{\text{hp}\cdot\text{hr}} = 4.4 \frac{\text{MMBtu}}{\text{hr}}$ |

Based upon the maximum heat input rating:

$$\frac{0.0194 \text{ lb} \cdot \text{PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb}} \times \frac{\text{MMBtu}}{8,578 \text{ ft}^3} = 0.0158 \frac{\text{grain} \cdot \text{PM}}{\text{ft}^3}$$

Since 0.0158 grain·PM/ft³ is less than 0.1, no adjustment is necessary for Rule 4201.

3. Rule 4701 Internal Combustion Engines - Phase 1

The purpose of Rule 4701 is to limit emissions of NO_x, CO and VOC from IC engines.

Table 3 limits NO_x, CO and VOC emissions for rich burn engines to 50 ppmv, 2,000 ppmv and 250 ppmv, at 15% oxygen, respectively. Since this engine was permitted to operate at 25 ppmv-NO_x, 2,000 ppmv-CO and 60 ppmv-VOC, at 15% oxygen, no adjustment is necessary for Rule 4701.

4. Rule 4702 Internal Combustion Engines

The purpose of this rule is to limit the emissions of NO_x, CO, VOC and SO_x from internal combustion engines.

NO_x, CO and VOC

Table 2 requires rich burn engines that are not ag-only, waste gas-fired, cyclic loaded field-gas-fueled or limited use engines to be limited to 11 ppmv-NO_x, 2,000 ppmv-CO and 250 ppmv-VOC by the compliance date of 1/1/16.

The emission factors used to calculate the HAE for NO_x, CO and VOC are compared to the Rule 4702 limits in the following table (in ppmv @ 15% O₂).

| Rule 4702 Emission Factors | | | | |
|----------------------------|-----------|--------------|--------------|-------------|
| Pollutant | Rule 4702 | HAE for 49-2 | HAE for 53-5 | Adjustment? |
| NO _x | 25 | 10.4 | 0.4 | No |
| CO | 2,000 | 566 | 396 | No |
| VOC | 250 | 16.2 | 0.2 | No |

Since none of the emission factors used to calculate the HAE for the engines are above the Rule 4702 limits, no adjustment is necessary for these pollutants for Rule 4702.

SO_x

Section 5.7 requires that engines be fired on either PUC-regulated natural gas, or gas that does not exceed a sulfur content of 5 grains of sulfur per 100 scf of gas.

According to the District Policy *Generally Accepted SO_x Emission Factor for Combustion of PUC-quality Natural Gas*, PUC regulated gas contains 1.0 grains of sulfur per 100 scf of gas, which is equivalent to 0.00285 lb-SO_x/MMBtu. Since the HAE for these engines were calculated using no more than 0.0029 lb-SO_x/MMBtu, no adjustment is necessary.

5. Actual Emissions Reductions (AER)

Since no adjustments have been to the HAE, the AER is the same as the HAE posted in Section V.E above.

6. Air Quality Improvement Deduction (AQID)

Pursuant to Rule 2201 Section 3.5, the AQID is a 10% discount factor applied to AER (for criteria pollutants) before the AER is eligible for banking. GHG banking is covered by Rule 2301, and no AQID applies to GHG AER. The HAE is adjusted for the AQID for criteria pollutants in the following tables.

| Total HAE | | | |
|------------------|-------|-------|-----------------------|
| Quarter 1 (lb) | | | |
| Pollutant | HAE | AQID | HAE Adjusted for AQID |
| NO _x | 27 | 2.7 | 24 |
| SO _x | 1 | 0.1 | 1 |
| PM ₁₀ | 26 | 2.6 | 23 |
| CO | 1,473 | 147.3 | 1,326 |
| VOC | 14 | 1.4 | 13 |

| Total HAE | | | |
|------------------|-------|-------|-------------------|
| Quarter 2 (lb) | | | |
| Pollutant | HAE | AQID | Adjusted for AQID |
| NO _x | 70 | 7 | 63 |
| SO _x | 2 | 0.2 | 2 |
| PM ₁₀ | 61 | 6.1 | 55 |
| CO | 3,471 | 347.1 | 3,124 |
| VOC | 36 | 3.6 | 32 |

| Total HAE | | | |
|------------------|-------|-------|-------------------|
| Quarter 3 (lb) | | | |
| Pollutant | HAE | AQID | Adjusted for AQID |
| NO _x | 23 | 2.3 | 21 |
| SO _x | 1 | 0.1 | 1 |
| PM ₁₀ | 29 | 2.9 | 26 |
| CO | 1,553 | 155.3 | 1,398 |
| VOC | 12 | 1.2 | 11 |

| Total HAE | | | |
|------------------|-----|------|-------------------|
| Quarter 4 (lb) | | | |
| Pollutant | HAE | AQID | Adjusted for AQID |
| NO _x | 17 | 1.7 | 15 |
| SO _x | 0 | 0.0 | 0 |
| PM ₁₀ | 9 | 0.9 | 8 |
| CO | 586 | 58.6 | 527 |
| VOC | 9 | 0.9 | 8 |

7. Increase in Permitted Emissions (IPE)

The unit has been shut down and there are no increases in emissions associated with this project. Therefore no adjustment is necessary.

8. Bankable Emissions Reduction Credits

The bankable ERCs for criteria pollutants are presented in pounds/quarter in the following tables, while the bankable GHG ERCs are expressed in metric tons per year.

| Bankable ERCs (lb) | |
|--------------------|-------|
| Quarter 1 | |
| NO _x | 24 |
| SO _x | 1 |
| PM ₁₀ | 23 |
| CO | 1,326 |
| VOC | 13 |

| Bankable ERCs (lb) | |
|--------------------|-------|
| Quarter 2 | |
| NO _x | 63 |
| SO _x | 2 |
| PM ₁₀ | 55 |
| CO | 3,124 |
| VOC | 32 |

| Bankable ERCs (lb) | |
|--------------------|-------|
| Quarter 3 | |
| NO _x | 21 |
| SO _x | 1 |
| PM ₁₀ | 26 |
| CO | 1,398 |
| VOC | 11 |

| Bankable ERCs (lb) | |
|--------------------|-----|
| Quarter 4 | |
| NO _x | 15 |
| SO _x | 0 |
| PM ₁₀ | 8 |
| CO | 527 |
| VOC | 8 |

VI. Compliance

Rule 2201 - New and Modified Stationary Source Review Rule

Pursuant to Section 3.2, any AER must be real, enforceable, quantifiable, permanent, and surplus.

A. Real

The emissions reductions were generated by the shutdown of two engines. The emissions were calculated from historic fuel-use data and recognized emission factors and source test data, therefore the emissions were real. The engines have been removed. Therefore, the emission reductions are real.

B. Enforceable

The associated permits for these units have been surrendered to the District, and the engines have been removed. Operation of the equipment without a valid permit would subject the permittee to enforcement action, and this facility is subject to annual inspections. Therefore, the reductions are enforceable.

C. Quantifiable

The reductions are quantifiable since they were calculated from historic fuel use records, source testing data, established and accepted emission factors and methods according to District Rule 2201. Therefore, the reductions are quantifiable and have been quantified.

D. Permanent

The equipment has been shut down and removed and the permits have been surrendered. The gas in the field has been depleted, all compressor engines have been removed and there are no other engines or electric motors connected to compress any remaining gas. Since no emissions have been shifted, the reductions are permanent.

E. Surplus

To be considered surplus, AER shall be in excess, at the time the application for an ERC is deemed complete, of any emissions reduction which:

- Is required or encumbered by any laws, rules, regulations, agreements, orders, or
- Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- Is proposed in the adopted air quality plan pursuant to the California Clean Air Act.

As discussed in Section V above, there are no rules, regulations, plans, etc., that would serve to reduce the bankable emissions for criteria pollutants. Therefore the reductions are surplus.

F. Not used for the Approval of an Authority to Construct or as Offsets

The emission reduction credits generated by the shutdown of the engine have not been used for the approval of any ATC or as offsets or mitigation. The PTO has been surrendered.

Rule 2301 – Emission Reduction Credit Banking

Section 5.5 states that ERC Certificate applications shall be submitted within 180 days after the emission reduction occurs. The engines were removed from operation and the permits were cancelled on 8/27/12. The applicant filed the ERC application on 2/15/13. Since the application was received within 180 days of the surrender of the permit, the application was submitted in a timely fashion.

Section 6.1.2 states that if the emission reductions were created as a result of the shutdown of a permitted emissions unit, the relevant Permit to Operate shall have been surrendered and voided. The Permits to Operate were surrendered and canceled by the District on 8/27/12.

Regarding GHG, the purpose of this Rule is to:

- 1.2.1 Provide an administrative mechanism for sources to bank voluntary greenhouse gas emission reductions for later use.
- 1.2.2 Provide an administrative mechanism for sources to transfer banked greenhouse gas emission reductions to others for any use.
- 1.2.3 Define eligibility standards, quantitative procedures and administrative practices to ensure that banked greenhouse gas emission reductions are real, permanent, quantifiable, surplus, and enforceable.

Section 4.5 specifies eligibility criteria for GHG emission reductions to qualify for banking. Below is a summary of each criteria and a description of how the emission reductions satisfy the criteria.

Section 4.5.1 requires that the emission reduction must have occurred after 1/1/05.

The emission reductions occurred when the engines were removed in 2012. As the emission reduction occurred after 1/1/05, this criteria has been satisfied.

Section 4.5.2 requires that the emissions must have occurred in the District.

The emissions occurred at the Coalinga Nose Unit in Coalinga, CA. Since this location is within the District, this criteria has been satisfied.

Section 4.5.3 requires that the emission reductions must be real, surplus, permanent, quantifiable, and enforceable.

Real:

The emissions reductions were generated by the shutdown of an engine. The emissions were calculated from actual historic fuel-use data and recognized emission factors and source test data, therefore the emissions were real. The engine has been removed. Therefore, the emission reductions are real.

Surplus:

There are no laws, rules, regulations, agreements, orders, or permits requiring any GHG emission reductions from the natural gas-fired compressors. Therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.2.

The emission reductions are not the result of an action taken by the permittee to comply with any requirement.

However, this facility is subject to the CARB Cap and Trade regulation. Pursuant to Section 4.5.3.1, *greenhouse gas emission reductions that occur at a facility subject to the CARB greenhouse gas cap and trade regulation on or after January 1, 2012 are not surplus.*

The AER from the shutdown of C-2885-53 occurred on 8/5/11, and therefore qualify as surplus. The AER from C-2885-49 occurred on 4/11/12, which is after 1/1/12, therefore the associated AER are not surplus, and do not qualify for ERC banking.

The total bankable AER for GHG is adjusted by eliminating the GHG AER from C-2885-49 as follows:

$$CO_2e \text{ AER} = \frac{185 \rightarrow 0 \text{ Metric tons}}{\text{year}} + \frac{161 \text{ Metric Tons}}{\text{year}} = 161 \frac{\text{Metric Tons}}{\text{year}}$$

Permanent:

The equipment has been shut down and removed and the permit has been surrendered. The gas in the field has been depleted, all compressor engines have been removed and there are no other engines or electric motors connected to compress any remaining gas. Since no emissions have been shifted, the reductions are permanent.

When determining the geographical boundary in which the emission reduction is determined to be permanent the applicant may consider how the GHG ERC may likely be used.

Please note that while Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements on the use of GHG ERCs. However, it is anticipated that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the CEQA process.

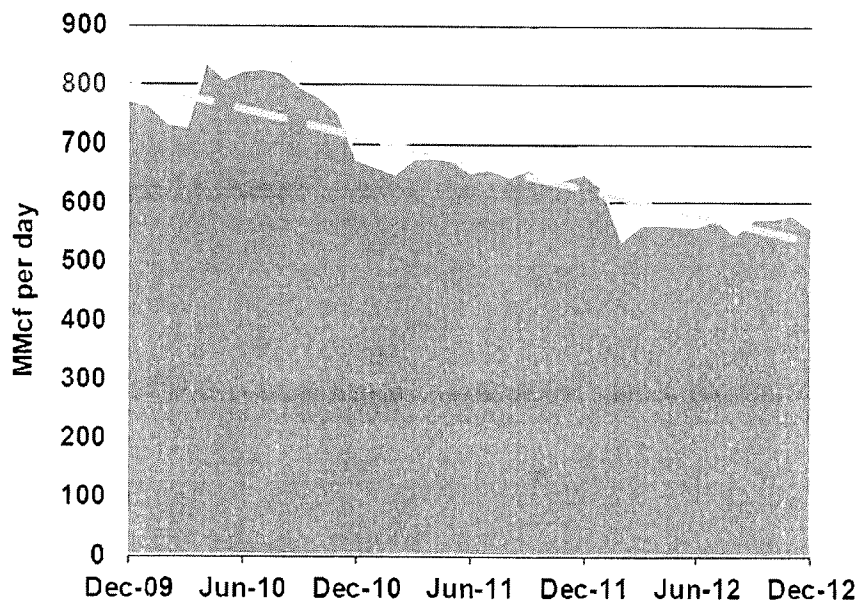
Pursuant to CEQA, lead agencies must consider the environmental impact of GHG emissions from a project and may require that such GHG emissions be mitigated. In evaluating various mitigation techniques, including the retirement of GHG ERCs, the lead agency must determine if the proposed mitigation technique adequately mitigates the project's GHG emission increase.

When a lead agency determines if the retirement of a particular GHG ERC provides adequate GHG mitigation for a project, the lead agency may choose to consider the location where the GHG ERC was generated and the geographical boundary used to determine the permanence of the emission reduction. In making this determination, the lead agency may conclude that the retirement of a particular GHG ERC would provide adequate mitigation for projects within that same geographical boundary. Again, that determination will be made by the lead agency for a particular project.

This applicant has selected the State of California as the geographical boundary for which the emission reduction is permanent. Information has been provided below to validate this geographical boundary selection.

As shown in the following chart from the Division of Oil, Gas and Geothermal Resources (DOGGR), the total natural gas production in the State of California has been on a decline since 2009. Gas production has declined from 800,000,000 cubic feet per day in 12/09 to 550,000,000 cubic feet per day in 12/12.

CALIFORNIA GAS PRODUCTION



Sources: EIA / DOGGR / Navigant

Chevron had three natural gas compressors serving the Coalinga Nose Unit, and due to a lack of gas to compress, all of the engines have been shut down and removed, and there are no other engines or electric motors compressing any of the remaining gas. Therefore there is no transfer of emissions to any other sources, and the emission reductions are permanent.

Based on this information, the geographical boundary for which the emission reduction is permanent is the State of California.

The ERC Certificate will include the following identifier:

"Shutdown of engine verified as permanent within the State of California"

Quantifiable:

The actual emissions were calculated from historic fuel-use records and accepted emission factors. Therefore, the emission reductions are quantifiable and have been quantified.

Enforceable:

The engine has been shut down and the PTO has been surrendered to the District. Operation of the equipment without a valid permit would subject the permittee to enforcement action. Therefore, the emission reductions are enforceable.

Section 4.5.4 requires that GHG emission reductions be calculated as the difference between the historic annual average GHG emissions (as CO₂e) and the PE2 after the reduction is complete. The historical GHG emissions must be calculated using the consecutive 24 month period immediately prior to the date the emission reductions occurred (the shutdown of the cotton gin), or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations.

The GHG emission reductions were calculated according to the baseline period identified above. Since this is a permanent shutdown of the compressor engine from a depleted natural gas field, with none of the load being shifted to any other compressor engines or electric motors in California, there is no post-project potential to emit GHG.

Section 4.5.5 requires that GHG emission reductions proposed to be quantified using CARB-approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

Since the GHG emission reductions are not subject to an applicable CARB-approved emission reduction project protocol, this section is not applicable.

Section 4.5.6 requires that ERCs shall be made enforceable through permit conditions or legally binding contract.

The compressor engine held a legal District operating permit. That permit has been surrendered to the District. Since the operation of a new engine would require a new Authority to Construct, as discussed above, the emission reduction is enforceable.

Section 5 identifies ERC Certificate application procedures.

Section 5.5.2 requires, for emission reductions occurring prior to 1/19/12, applications for ERCs must be submitted by 7/19/12.

The ERC application was submitted on 5/27/11, therefore the application is timely.

Section 6.15 specifies the registration requirements for GHG ERCs.

This emission reductions are surplus and additional of all requirements pursuant to Section 4.5.3.4. Therefore the ERC certificate shall include the following notation:

“This emission reduction is surplus and additional to all applicable regulatory requirements.”

Compliance with Rule 2301 has been demonstrated and no further adjustments are necessary.

VII. Recommendation

Issue ERC Certificates in the amounts posted in the table below and on the Draft ERC Certificates in Appendix E.

| Bankable Criteria ERCs (lb/quarter) | | | | | |
|-------------------------------------|-----------------|-----------------|------------------|-------|-----|
| | NO _x | SO _x | PM ₁₀ | CO | VOC |
| 1st Quarter | 27 | 1 | 26 | 1,473 | 14 |
| 2nd Quarter | 70 | 2 | 61 | 3,471 | 36 |
| 3rd Quarter | 23 | 1 | 29 | 1,533 | 12 |
| 4th Quarter | 17 | 0 | 9 | 586 | 9 |

| Bankable GHG ERCs (metric tons/year) | |
|--------------------------------------|-----|
| GHG | 161 |

List of Appendixes

- A. Surrendered Permit to Operate
- B. Source Test Data
- C. Fuel Use Records
- D. Draft Emission Reduction Credit Certificates

Appendix A Surrendered Permits to Operate

INSPECTION
EXPIRATION DATE: 10/31/2017
WORKSHEET

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

LOCATION: S. 7F T. 20S R. 16E
FRESNO COUNTY, CA

INSPECT PROGRAM PARTICIPANT: NO

EQUIPMENT DESCRIPTION:

600 BHP NATURAL GAS-FIRED SUPERIOR MODEL 6G825 INTERNAL COMBUSTION ENGINE POWERING A NATURAL GAS COMPRESSOR

CONDITIONS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 1 grain per 100 scf. [District NSR Rule and District Rule 4801] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 25 ppmvd NOx @ 15% O2, equivalent to 0.349 g-NOx/hp-hr, 0.011 g-SOx/hp-hr, 0.064 g-PM10/hp-hr, 2,000 ppmvd CO @ 15% O2, equivalent to 16.981 g-CO/hp-hr, or 60 ppmvd VOC @ 15% O2, equivalent to 0.291 g-VOC/hp-hr. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit
4. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District NSR Rule and District Rule 2520, 9.3] Federally Enforceable Through Title V Permit
5. If the engine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule and District Rule 2520, 9.3] Federally Enforceable Through Title V Permit
6. If the engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District NSR Rule and District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

10. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
14. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
20. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

INSPECTION
WORKSHEET

INSPECTION
EXPIRATION DATE: 10/31/2017

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

LOCATION: S. 7F T. 20S R. 16E
FRESNO COUNTY, CA

INSPECT PROGRAM PARTICIPANT: NO

EQUIPMENT DESCRIPTION:

880 BHP NATURAL GAS-FIRED SUPERIOR MODEL 8G825 INTERNAL COMBUSTION ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION POWERING A NATURAL GAS COMPRESSOR

CONDITIONS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Unit shall be fired only on PUC quality natural gas with a sulfur content of less than or equal to 1 grain per 100 scf. [District NSR Rule and District Rule 4801] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 25 ppmvd NOx @ 15% O2, equivalent to 0.349 g-NOx/hp-hr, 0.011 g-SOx/hp-hr, 0.064 g-PM10/hp-hr, 2,000 ppmvd CO @ 15% O2, equivalent to 16.981 g-CO/hp-hr, or 60 ppmvd VOC @ 15% O2, equivalent to 0.291 g-VOC/hp-hr. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit
4. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The sulfur content testing shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
8. This engine shall be operated within the ranges that the source testing has shown result in pollution concentrations within the emissions limits as specified on this permit. [District Rule 4702] Federally Enforceable Through Title V Permit
9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

10. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO_x, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
13. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 4701, and 4702] Federally Enforceable Through Title V Permit
14. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 15% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
20. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

INSPECTION
WORKSHEET

Appendix B Source Test Data

AEROS ENVIRONMENTAL, INC.

Summary Of Results

Chevron U.S.A., Inc.
Coalinga
IC Engine 3

Project 104-5485A
June 29, 2007
ATC No. C-2885-49-2

| Pollutant | ppm | ppm @ 15% O ₂ | lb/hr | gm/Bhp-hr | lb/MMBtu | Permit Limits |
|--|--|-----------------------------|--|---|---|-------------------------------|
| NOx | 29.4 | 8.7 | 0.09 | 0.122 | 0.0318 | 25 ppm @ 15% O ₂ |
| | 36.2 | 10.3 | 0.11 | 0.145 | 0.0377 | |
| | 43.2 | 12.3 | 0.13 | 0.174 | 0.0451 | |
| Mean | 36.3 | 10.4 | 0.11 | 0.147 | 0.0382 | |
| CO | 2040 | 602 | 3.87 | 5.168 | 1.3414 | 2000 ppm @ 15% O ₂ |
| | 1921 | 546 | 3.51 | 4.688 | 1.2170 | |
| | 1926 | 549 | 3.53 | 4.712 | 1.2231 | |
| Mean | 1962 | 566 | 3.64 | 4.856 | 1.2605 | |
| VOC C ₂ - C ₆ + as C ₁ | 58.1 | 17.2 | 0.06 | 0.084 | 0.0218 | 60 ppm @ 15% O ₂ |
| | 56.8 | 16.2 | 0.06 | 0.078 | 0.0206 | |
| | 52.7 | 15.1 | 0.06 | 0.073 | 0.0191 | |
| Mean | 55.9 | 16.2 | 0.06 | 0.078 | 0.0205 | |
| Fuel Sulfur (SOx as SO₂) | As H ₂ S in Fuel Gas 5.9 | | As SO ₂ in Stack Exhaust 0.002 | As SO ₂ in Stack Exhaust 0.0031 | As SO ₂ in Stack Exhaust 0.0008 | 0.0019 gm/Bhp-hr |
| Comments: _____ | | | | | | |
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AEROS ENVIRONMENTAL, INC.
Summary Of Results

Chevron U.S.A., Inc.
Coalinga
IC Engine 2

Project 104-6010
June 30, 2008
ATC No. C-2885-53-5

| Pollutant | ppm | ppm @ 15% O ₂ | lb/hr | lb/MMBtu | g/Bhp-hr | Permit Limits |
|--|---|--------------------------|--|---|---|-------------------------------|
| NOx | 1.2 | 0.3 | 0.02 | 0.0012 | 0.0048 | 25 ppm @ 15% O ₂ |
| | 1.2 | 0.3 | 0.02 | 0.0012 | 0.0048 | |
| | 1.3 | 0.4 | 0.02 | 0.0014 | 0.0053 | |
| Mean | 1.2 | 0.4 | 0.02 | 0.0013 | 0.0050 | |
| CO | 1603 | 453 | 17.14 | 1.0090 | 3.8760 | 2000 ppm @ 15% O ₂ |
| | 1265 | 357 | 13.64 | 0.7959 | 3.0575 | |
| | 1343 | 379 | 14.35 | 0.8453 | 3.2471 | |
| Mean | 1404 | 396 | 15.04 | 0.8834 | 3.3935 | |
| VOC C ₂ - C ₆ + as C ₁ | 0.6 | 0.2 | 0.003 | 0.00020 | 0.0008 | 60 ppm @ 15% O ₂ |
| | 0.9 | 0.2 | 0.005 | 0.00031 | 0.0012 | |
| | 0.8 | 0.2 | 0.005 | 0.00028 | 0.0011 | |
| Mean | 0.7 | 0.2 | 0.004 | 0.00026 | 0.0010 | |
| Fuel Sulfur (SOx as SO ₂) | As H ₂ S in Fuel Gas 5.45 | | As SO ₂ in Exhaust 0.013 | As SO ₂ in Exhaust 0.0007 | As SO ₂ in Exhaust 0.0029 | 0.011 g/Bhp-hr |
| Comments: _____ | | | | | | |
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Appendix C Fuel-Use Records

Fuel-use records for each engine have been supplied by the applicant.

The fuel-use has been averaged into quarters for the baseline period and is presented in the following tables.

| Fuel-Use C-2885-49: May 2007 – April 2009 | | | | |
|---|------------------------|------------------------|------------------|----------------------|
| Quarter | 2-year Total (Mscf) | 1-yr Average (Mscf) | HHV (Btu/scf) | MMBtu (MMBtu/qtr) |
| Quarter 1 | 1,119 | 559.5 | 1,234 | 690 |
| Quarter 2 | 2,869 | 1,434.5 | 1,234 | 1,770 |
| Quarter 3 | 918 | 459 | 1,234 | 566 |
| Quarter 4 | 74 | 37 | 1,234 | 46 |
| Total | | | | 3,072 |

| Fuel-Use C-2885-53 May 2007 – April 2009 | | | | |
|--|------------------------|------------------------|------------------|----------------------|
| Quarter | 2-year Total (Mscf) | 1-yr Average (Mscf) | HHV (Btu/scf) | MMBtu (MMBtu/qtr) |
| Quarter 1 | 1,122 | 561 | 1,218 | 683 |
| Quarter 2 | 2,305 | 1,152.5 | 1,218 | 1,404 |
| Quarter 3 | 1,524 | 762 | 1,218 | 928 |
| Quarter 4 | 20 | 10 | 1,218 | 12 |
| Total | | | | 3,027 |

Appendix D
Draft ERC Certificates

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-1
DRAFT

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For VOC Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----------|-----------|-----------|-----------|
| 14 lbs | 36 lbs | 12 lbs | 9 lbs |

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-2
DRAFT

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For NOx Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----------|-----------|-----------|-----------|
| 27 lbs | 70 lbs | 23 lbs | 17 lbs |

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-3
DRAFT

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For CO Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----------|-----------|-----------|-----------|
| 1,473 lbs | 3,471 lbs | 1,533 lbs | 586 lbs |

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director /APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-4
DRAFT

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For PM10 Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----------|-----------|-----------|-----------|
| 26 lbs | 61 lbs | 29 lbs | 9 lbs |

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-5
DRAFT

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For SO_x Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----------|-----------|-----------|-----------|
| 1 lbs | 2 lbs | 1 lbs | None |

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director /APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1372-24

ISSUED TO: CHEVRON USA, INC.
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: S7F T20S R16E
FRESNO COUNTY, CA

For CO2E Reduction In The Amount Of:

161 metric tons / year

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Description

Emission Reduction Qualification Criteria

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services