



AUG 25 2015

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

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: C-313
Project Number: C-1122254

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 one natural gas-fired engine powering a refrigerant compressor, at the Kettleman North Dome Oilfield in Kings County. The quantity of ERCs proposed for banking is 714 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

Sayed Sadredin
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
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San Joaquin Valley Air Pollution Control District
ERC Application Review - Greenhouse Gases
IC Engine Shutdown

Facility Name: Chevron USA

Date: 8/10/15

Mailing Address: PO Box 1392
Bakersfield, CA 93302

Engineer: Steve Roeder
Lead Engineer: Rich Karrs

Contact Person: Lance Ericksen

Telephone: (661) 654-7145

Project #: C-1122254

Received: 7/12/12

Deemed Complete: 7/18/12

ERC #: C-1371-24

I. Summary

The primary business of Chevron is oil and natural gas production. Chevron has surrendered the Permit to Operate (PTO) for a full-time engine powering a refrigerant compressor (C-313-26-2), following its shutdown on 8/28/07. The facility had submitted an application to bank the emission reduction credits (ERCs) for the Actual Emission Reductions (AER) of criteria pollutants from the engine on 2/19/08 (ERC Project C-1080391).

Subsequently, the facility has submitted this application to bank the Greenhouse Gas (GHG) AER that also resulted from the shutdown of the compressor engine. See the surrendered (PTO) in Appendix A.

Pursuant to the Discussion under "Permanence" in Section VI below, the facility has proposed the State of California as the geographical boundary for which the emission reduction is permanent. The following AER qualify for ERC banking.

GHG ERCs		
ERC Certificate	Pollutant	Amount
C-1371-24	CO ₂ e	714 metric tons/year

II. Applicable Rules

Rule 2301 Emission Reduction Credit Banking (1/19/12)

III. Location of Reduction

The equipment was located at in Section 3, Township 22S, Range 17E in the Kettleman North Dome Oilfield, in King's County.

IV. Method of Generating Reductions

The emission reductions were generated by the shutdown of an IC engine. The GHG were emitted from the engine which was fired on natural gas.

Equipment Description

C-313-26-2: 229 BHP WAUKESHA MODEL F1197GU (S/N 354890) NATURAL GAS-FIRED RICH-BURN IC ENGINE WITH JOHNSON MATTHEY DURONOX 250 NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING A REFRIGERANT COMPRESSOR

V. Calculations

A. Assumptions and Emission Factors

Assumptions

- Units of GHG AER is metric tons of CO₂e per year, rounded to the nearest metric ton
- 1,000 kg = 1 metric ton
- 1 MMBtu of Natural Gas = 1,000 scf (District Policy APR-1720)
- The final CO₂e emission factor from the combustion of natural gas includes GHG emissions of CO₂, CH₄ and N₂O, where the total emission factor includes the summation of each of the compounds multiplied by their Global Warming Potential (GWP)
- The emission factors are from the District's Spreadsheet: *ARB GHG Emission Factors*

Emission Factors (EF)

The emission factors, global warming potential, and CO₂ equivalent emission factors for CO₂, CH₄, and N₂O are shown in the following table.

Natural Gas Emission Factors				
Pollutant	kg/MMBtu	GWP	CO ₂ e EF	
CO ₂	52.87	1.00	52.87	kg-CO ₂ e /MMBtu
CH ₄	0.0009	21.00	0.0189	kg-CO ₂ e /MMBtu
N ₂ O	0.0001	310.0	0.031	kg-CO ₂ e /MMBtu
CO ₂ e			52.92	kg-CO ₂ e /MMBtu

The CO₂e emission factor is converted into metric tons/therm as follows:

$$\frac{52.92 \text{ kg} \cdot \text{CO}_2\text{e}}{\text{MMBtu}} \times \frac{1 \text{ metric ton}}{1,000 \text{ kg}} = 0.0529 \frac{\text{metric tons} \cdot \text{CO}_2\text{e}}{\text{MMBtu}}$$

B. Baseline Period Determination

Pursuant to Rule 2301, Section 3.6, the Baseline Period is the same as defined in Rule 2201, which is:

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.

The original ERC Banking Project C-1080931 specified the baseline period as the operating years 2004 - 2007. Since the District has already established this as the correct baseline period for the criteria pollutant emission reductions that have already been evaluated and issued, the same baseline period is used for this evaluation.

Therefore the Baseline Period is the operating years of 1/1/04 – 8/28/07.

C. Baseline Data

The baseline natural gas-use is taken from the annual fuel-use records that have been supplied by the applicant, as evaluated in ERC project C-1080931. The fuel-use is expressed as total annual fuel-use in the following table.

Baseline Fuel Usage (MMBtu)				
Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Annual
3,212	3,219	3,174	3,906	13,511

D. Historical Actual Emissions (HAE)

The HAE from the fuel-use is determined by multiplying the annual fuel-use by the emission factor presented above.

$$\frac{0.0529 \text{ Metric Tons } CO_2e}{MMBtu} \times \frac{13,511 \text{ MMBtu}}{\text{year}} = 714 \frac{\text{Metric Tons } CO_2e}{\text{year}}$$

E. Post Project Potential to Emit (PE2)

As discussed above, the subject equipment has been permanently shut down and its PTO was surrendered. Therefore the PE2 is 0.

F. Emission Reductions Eligible for Banking

The emission reductions eligible for banking are the difference between the historical actual emissions and the potential to emit after the project.

$$\begin{aligned} \text{ERCs eligible for banking} &= 714 \text{ metric ton/year} - 0 \text{ ton/year} \\ &= 714 \text{ metric ton/year} \end{aligned}$$

VI. Compliance

Rule 2301 – Emission Reduction Credit Banking

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 PTO was surrendered on 8/28/07. 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 Section 3, Township 22S, Range 17E in the Kettleman North Dome Oilfield, in King's County. 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 GHG emission reductions were generated by the shutdown of an IC engine. The real emissions were calculated from actual historic fuel-use data and recognized emission factors. The engine has been removed. Therefore, the emission reductions are real.

Surplus:

At the time the reduction occurred, the facility was not subject to any GHG regulations. Additionally, the emission reductions occurred prior to 1/1/12. Therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.1.

There are no laws, rules, regulations, agreements, orders, or permits requiring any GHG emission reductions from cotton gins. 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. The emission reductions are surplus and additional of all requirements. Therefore, the emission reductions satisfy the surplus requirement in section 4.5.3.4.

The Certificate will be identified according to Section 6.15.3 below.

Permanent:

The engine has been shut down, removed, and the PTO has been surrendered.

Rule 2301 contains several eligibility criteria for emission reduction credit banking, including that the emission reduction must be 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.

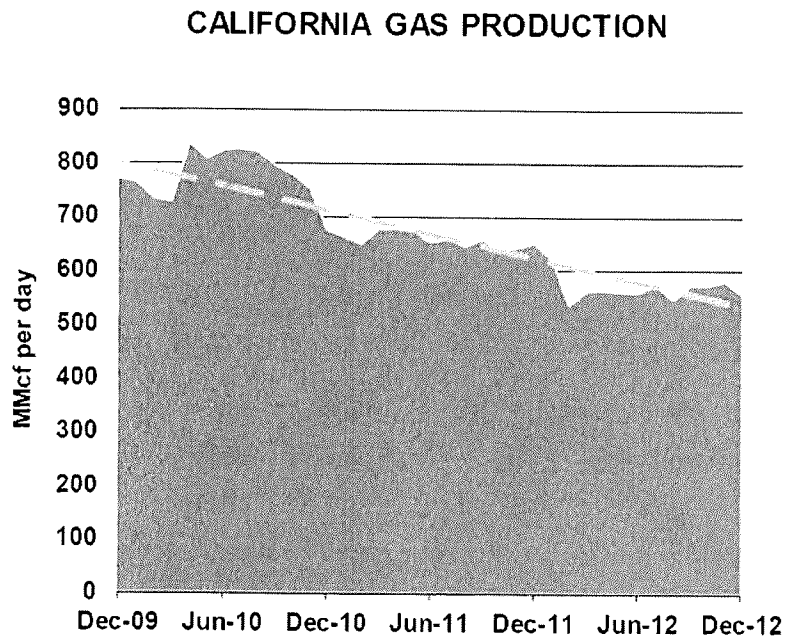
Please note that while Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements on the use of GHG ERCs. However, it is anticipated that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the CEQA process.

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. Thus 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 continues to decline. 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.



Sources: EIA / DOGGR / Navigant

Chevron had a compressor serving the North Dome Oilfield, which was eventually shut down due to a lack of gas to compress. The engine has been shut down and removed, and there are no other engines or electric motors compressing any of the remaining gas. Since all of the gas in the Dome Oilfield has been permanently depleted, and there is no transfer of emissions to any other sources, 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 engines and oil heater 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 cotton gin, with none of the load being shifted to any other gin in California, there is no post-project potential to emit GHG.

Section 4.5.5.5 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 cotton gin held a legal District operating permit. That permit has been surrendered to the District. Since the operation of the cotton gin 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 7/12/12, 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 adjustments are required under this Rule.

VII. Recommendation

Issue the ERC Certificate in the amount posted in the table below and on the Draft ERC Certificate in Appendix B.

GHG ERCs		
ERC Certificate	Pollutant	Amount
C-1371-24	CO ₂ e	714 metric tons/year

List of Appendixes

- A. Surrendered PTO
- B. Draft Emission Reduction Credit Certificate

Appendix A
Surrendered PTO

FILE

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-313-26-2

EXPIRATION DATE: 01/31/2009

EQUIPMENT DESCRIPTION:

229 BHP WAUKESHA MODEL F1197GU (S/N 354890) NATURAL GAS-FIRED RICH-BURN IC ENGINE WITH JOHNSON MATTHEY DURONOX 250 NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING A REFRIGERANT COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Sulfur compound emissions shall not exceed 2000 ppmv as SO₂. [District Rule 4801]
5. This unit shall be fired on natural gas with a sulfur content of less than or equal to 1 gr-S/100 scf. [District Rule 2201]
6. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2201]
7. 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 Rule 2201]
8. Emissions from this IC engine shall not exceed any of the following limits: 25 ppmvd NO_x @ 15% O₂ (equivalent to 0.349 g-NO_x/bhp-hr), 0.011 g-SO_x/hp-hr, 0.158 g-PM₁₀/hp-hr, 564 ppmvd CO @ 15% O₂ (equivalent to 4.79 g-CO/bhp-hr), or 39 ppmvd VOC @ 15% O₂ (equivalent to 0.189 g-VOC/bhp-hr). [District Rules 2201, 4701, and 4702]
9. 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]
10. 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]
11. 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]
12. 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 25A or 25B, or ARB Method 100. [District Rules 1081, 4701, and 4702]
13. 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]
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: J.P. OIL COMPANY, INC.
Location: 3P PLANT, KETTLEMAN HILLS, KINGS COUNTY, CA
C-313-26-2 Apr 30 2007 4:04PM - PAMPA:AD

15. The permittee shall monitor and record the stack concentration of NO_x, 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]
16. 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]
17. 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]
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]
19. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702]
20. 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]
21. 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]
22. 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]
23. 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]

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

Facility Name: J.P. OIL COMPANY, INC.
Location: 3P PLANT, KETTLEMAN HILLS, KINGS COUNTY, CA
C-313-26-2 - Apr 30 2007 4:04PM -- PAMPAUD

Appendix B
Draft ERC Certificate

San Joaquin Valley
Air Pollution Control District

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

Emission Reduction Credit Certificate

C-1371-24

ISSUED TO: CHEVRON USA INC
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 3P PLANT, KETTLEMAN HILLS
KINGS COUNTY, CA

For CO2E Reduction In The Amount Of:

714 metric tons / year

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Emission Reduction Qualification Criteria

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services