

NORTHERN REGION

CENTRAL REGION

SOUTHERN REGION

# ERC/PUBLIC NOTICE CHECK LIST

PROJECT #s: S-1120775 5-1131

REQST. COMPL.

ERC TRANSFER OF PREVIOUSLY BANKED CREDITS  
 ERC PRELIMINARY PUBLIC NOTICE  
 ERC FINAL PUBLIC NOTICE

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Date Completed October 29/By Allan Phillips

Newspaper Notice Emailed to Clerical (Check box and tab to generate Notice)

Send email to "OA-PublicNotices" containing the following:  
SUBJECT: facility name, facility id#, project #, type of notice (prelim/final)  
BODY: project description and why it is being noticed (based on Major Source, Major Modification, Title V Minor Mod, Title V Significant Mod, Initial Title V, Title V renewal, or ATC with COC)

## ENCLOSED DOCUMENTS REQUIRE:

Enter Correct Date, Print All Documents from File and Obtain Directors Signature

Mail **PRELIMINARY** Notice Letter to Applicant with the following attachments:

Application Evaluation

Other Public Notice

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~~source not found:~~ Pub 12/19/13 Date 1/21

Email **PRELIMINARY** Public Notice package to EPA and CARB

Email **PRELIMINARY** Public Notice package to "webmaster"

Send **PRELIMINARY** Public Notice package to:  
Steve Davidson

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Song  
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1990 E. GETTYSBURG AVE.  
FRESNO, CA 93726

CNS 2568990

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Notice Type: GPN GOVT PUBLIC NOTICE  
Ad Description Prelim ERC, S-1120775, Chevron, Bakersfield

To the right is a copy of the notice you sent to us for publication in the THE BAKERSFIELD CALIFORNIAN. Please read this notice carefully and call us with any corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

12/19/2013

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#### NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

The analysis of the regulatory basis for this proposed action, Project #S-1120775, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District Office at the address below. Written comments on this project must be submitted by January 21, 2014 to  
DAVID WARNER,  
DIRECTOR OF PERMIT  
SERVICES, SAN  
JOAQUIN VALLEY  
UNIFIED AIR  
POLLUTION CONTROL  
DISTRICT, 34946  
FLYOVER COURT,  
BAKERSFIELD, CA  
93308.  
12/19/13  
CNS-2568990#  
THE BAKERSFIELD  
CALIFORNIAN



## Song Thao

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**From:** Song Thao  
**Sent:** Monday, December 16, 2013 1:54 PM  
**To:** Gerardo Rios (SJV\_T5\_Permits@epa.gov.); Mike Tollstrup (mtollstr@arb.ca.gov)  
**Subject:** Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775  
**Attachments:** Prelim S-1120775.PDF; Newspaper.PDF

**Importance:** High

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

**Song Thao**

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**From:** Microsoft Outlook  
**To:** Mike Tollstrup (mtollstr@arb.ca.gov)  
**Sent:** Monday, December 16, 2013 1:55 PM  
**Subject:** Relayed: Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775

**Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:**

[Mike Tollstrup \(mtollstr@arb.ca.gov\)](mailto:mtollstr@arb.ca.gov) ([mtollstr@arb.ca.gov](mailto:mtollstr@arb.ca.gov))

Subject: Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775

**Song Thao**

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**From:** Mail Delivery System <MAILER-DAEMON@mintra12.rtp.epa.gov>  
**To:** SJV\_T5\_Permits@epamail.epa.gov  
**Sent:** Monday, December 16, 2013 1:55 PM  
**Subject:** Expanded: Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775

**Your message has been delivered to the following groups:**

[SJV T5 Permits@epamail.epa.gov](mailto:SJV_T5_Permits@epamail.epa.gov)

Subject: Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775

## Song Thao

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**From:** Song Thao  
**Sent:** Monday, December 16, 2013 1:56 PM  
**To:** WebMaster  
**Subject:** valleyair.org update: Preliminary ERC Public Notice for Chevron USA Inc. Facility S-1131 Project S-1120775  
**Attachments:** Prelim S-1120775.PDF; Newspaper.PDF; Aviso.PDF

December 16, 2013 (Facility S-1131 Project S-1120775) NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year. The comment period ends on January 21, 2014.

[Newspaper Notice](#)

[Aviso](#)

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## Song Thao

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**From:** Song Thao  
**Sent:** Monday, December 16, 2013 5:20 PM  
**To:** All Region (Notices\_of\_Permitting\_Actions-All\_Regions@lists.valleyair.org); South (Notices\_of\_Permitting\_Actions-Southern\_Region@lists.valleyair.org)  
**Subject:** Public Notice on Permitting Action S-1120775

The District has posted a new permitting public notice. The public notice can be viewed on our website at: [http://www.valleyair.org/notices/Docs/2013/12-16-13\\_\(S-1120775\)/Newspaper.pdf](http://www.valleyair.org/notices/Docs/2013/12-16-13_(S-1120775)/Newspaper.pdf)

For a list of public notices and public notice packages, please visit our website at: [http://www.valleyair.org/notices/public\\_notices\\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices](http://www.valleyair.org/notices/public_notices_idx.htm#PermittingandEmissionReductionCreditCertificateNotices)

Thank you.

## Song Thao

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**From:** Song Thao  
**Sent:** Monday, December 16, 2013 5:21 PM  
**To:** All Spanish (Avisos\_Sobre\_Acciones\_de\_Permisos-Todos@lists02.valleyair.org)  
**Subject:** Aviso Publico Sobre Acciones de Permisos S-1120775

El Distrito del Aire a publicado un nuevo aviso público de permiso. El aviso público se puede ver en nuestro sitio de web en: [http://www.valleyair.org/notices/Docs/2013/12-16-13\\_\(S-1120775\)/Aviso.PDF](http://www.valleyair.org/notices/Docs/2013/12-16-13_(S-1120775)/Aviso.PDF)

Para obtener una lista de avisos públicos y paquetes de avisos públicos, por favor visite nuestro sitio de web en: [http://www.valleyair.org/notices/public\\_notices\\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices](http://www.valleyair.org/notices/public_notices_idx.htm#PermittingandEmissionReductionCreditCertificateNotices)

Gracias



**AVISO DE DECISIÓN PRELIMINAR  
PARA LA PROPUESTA OTORGACIÓN DE  
CERTIFICADOS DE CRÉDITOS DE REDUCCIÓN DE EMISIONES**

POR EL PRESENTE SE NOTIFICA que el Distrito Unificado para el Control de la Contaminación del Aire del Valle de San Joaquín está solicitando comentarios del público para la propuesta emisión de Certificados de Créditos de Reducción de Emisiones (ERC, por sus siglas en inglés) a Chevron USA, Inc. para la clausura de cuatro turbinas de gas marca Solar (S-1131-970, -973, -974 -1073), en los campos de petróleo Kern River. La cantidad de ERCs propuestas para almacenar es 70,813 toneladas métricas de CO<sub>2</sub>e/año.

El análisis de la base regulatoria para esta acción propuesta, Proyecto #S-1120775, está disponible para la inspección pública en [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) y en cualquiera de las oficinas del Distrito. Para más información en Español, por favor comuníquese con el Distrito al (559) 230-6000. Comentarios por escrito acerca de este propuesto permiso inicial deben de ser sometidos antes del 21 de Enero del 2014 a **DAVID WARNER, DIRECTOR DEL DEPARTAMENTO DE PERMISOS, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

The analysis of the regulatory basis for this proposed action, Project #S-1120775, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted by January 21, 2014 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, .**



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



DEC 16 2013

Jason H Donchin  
Chevron USA, Inc.  
PO Box 1392  
Bakersfield, CA 93302

**Re: Preliminary Decision - Emission Reduction Credits**  
**Project Number: S-1120775**

Dear Mr. Donchin:

Enclosed for your review and comment is the District's analysis of Chevron USA, Inc.'s application for Green House Gas Emission Reduction Credits (ERCs) resulting from the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Steve Davidson of Permit Services at (661) 392-5618.

Sincerely,

David Warner  
Director of Permit Services

DW:SDD/st

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

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

# EMISSION REDUCTION CREDIT BANKING APPLICATION REVIEW

**Facility Name:** Chevron USA, Inc.  
**Mailing Address:** PO Box 1392  
Bakersfield, CA 93302

**Contact Name:** Jason H. Donchin  
**Telephone:** (661) 654-7144

**Facility:** S-1131  
**Permit Numbers:** S-1131-970, '-973, '-974, and '-1079

**ERC Certificate Numbers:** S-4113-24 & S-4114-24  
**Project Number:** S-1120775

**Date Received:** March 14, 2012  
**Date Complete:** September 24, 2012

**Engineer:** Steve Davidson  
**Date:** October 29, 2013

**Lead Engineer:** Allan Phillips, Supervising AQE

## I. SUMMARY:

The primary business of this facility is crude oil and gas production. Chevron USA, Inc has permanently shut down, removed, and surrendered the Permit to Operate (PTO) for four Solar gas turbines (S-1131-970, '-973, '-974, and '-1079) in October 2010. The facility had submitted an application to bank the emission reduction credits (ERCs) for the actual emission reductions (AER) of the criteria pollutants on November 30, 2010 (ERC Project S-1105004).

Subsequently, the facility has submitted this application to bank the Greenhouse Gas (GHG) AER that also resulted from the shut down of the turbines. See the surrendered PTOs in Appendix A.

### Selection of Geographical Boundary for Determining Permanence of the GHG Emission Reduction

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 California Environmental Quality Act (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 any particular project.

For this application, the facility has selected California as the geographical boundary for which the emission reduction is permanent. Chevron has provided a graph showing the decline in California Oil Production from 1995 to 2012. Additionally, Chevron is an entity covered by California CAP and Trade (AB32), AB 32 requires California to return to 1990 levels of greenhouse gas emissions by 2020. Therefore, Chevron will have to mitigate a 15% reduction in greenhouse gas emissions compared to the 'business-as-usual' scenario in 2020. This information validates California as the geographical boundary selection for a permanent GHG emission reduction.

The following emission reductions have been found to qualify for banking:

ERC #		ERC (lb)
		Metric Tons per Year
S-4113-24	CO <sub>2</sub> e	36,937 metric tons/year
S-4114-24	CO <sub>2</sub> e	33,851 metric tons/year

**II. APPLICABLE RULES:**

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

**III. LOCATION OF REDUCTION:**

The four Solar gas turbines are located in the Kern River Oilfield within Chevron's Kern County Heavy Oil Central stationary source.

ERC: S-4113-24

S-1131-970: A Fee lease #1, Section 25, Township 28S, Range 27E  
S-1131-973: A Fee lease #2, Section 25, Township 28S, Range 27E

ERC: S-4114-24

S-1131-974: C Fee lease #2, Section 30, Township 28S, Range 27E  
S-1131-1079: C Fee lease #1, Section 30, Township 28S, Range 27E

**IV. METHOD OF GENERATING EMISSION REDUCTIONS:**

The emission reductions are being generated by removing four natural gas fired Solar gas turbines.

Equipment Shut down:

PTO	Equipment
S-1131-970	COGENERATION UNIT #1 (NORTH UNIT) SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE A
S-1131-973	COGENERATION UNIT #1 (WEST) SOLAR CENTAUR TYPE H, 52.4 MM BTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - FEE A
S-1131-974	COGENERATION UNIT #2 (EAST): SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MV, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE C
S-1131-1079	COGENERATION UNIT #1 (FEE C LEASE - WEST UNIT) SOLAR CENTAUR 50-T5901S, 48.7 MMBTU/HR GAS FIRED DOE CERAMIC GTE, 4.1 MW, WITH LUBE OIL MIST ELIMINATOR, UNFIRED HEAT RECOVERY STEAM GENERATOR, AND CONTINUOUS MONITORING SYSTEM

## V. CALCULATIONS:

### A. Assumptions and Emission Factors

#### **Assumptions**

The actual emissions will be calculated annually in the baseline period. The Historical Actual Emissions (HAE) will be calculated using actual fuel use data and accepted emissions factors.

The applicant provided monthly fuel use data for the subject engines from the second quarter 2008 through the first quarter 2010.

- Units of GHG AER is metric tons of CO<sub>2</sub>e per year, rounded to the nearest metric ton
- 1,000 kg = 1 metric ton
- 1 therm of Natural Gas = 100 scf
- The final CO<sub>2</sub>e emission factor from the combustion of natural gas includes GHG emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, 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 CO<sub>2</sub>e equivalent emission factor is from the District's Spreadsheet "ARB – Greenhouse Gas Emissions factors and is listed below.

$$EF_{CO_2e} = 52.9199 \text{ KG/MMBtu}$$

$$EF_{CO_2e} = 52.9199 \text{ KG/MMBtu} \times (1 \text{ metric ton} / 1000 \text{ kg})$$

$$EF_{CO_2e} = 0.0529 \text{ metric tons/MMBtu}$$

### B. Baseline Period Determination

Pursuant to Rule 2301 section 4.5.4, the Baseline Period is the following:

*The consecutive 24 month period immediately prior to the date the emission reduction occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred.*

The original ERC Banking Project S-1131, 1105004 specified the baseline period. 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.

The Baseline Period is listed below:

Baseline Periods		
Lease	Permit Unit	Dates
A Fee lease (S25, T28S, R27E)	S-1131-970	September 2006 – August 2008
	S-1131-973	
C Fee lease (S30, T28S, R27E)	S-1131-974	July 2006 – June 2008
	S-1131-1079	

### **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 the original ERC project, and is posted in the following table.

Baseline Fuel Usage	
Permit	Annual Fuel Use (Therms)
S-1131-970	342,792
S-1131-973	355,435
S-1131-974	398,601
S-1131-1079	241,308

### **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.

Example Equation

**Permit S-1131-970 (Annual):**

$$\text{CO}_2\text{e} = [(\text{CO}_2\text{e EF}) \times (\text{Heat Input})]$$

$$\text{CO}_2\text{e} = [(0.0529 \text{ Metric Tons/MMbtu}) \times (342,792 \text{ MMBtu/year}) = 18,134 \text{ Metric Tons/year}]$$

Annual Emissions: Lease A Fee lease, Permit Units S-1131-970 & '-973			
Permit Unit	EF <sub>CO2e</sub> (Metric Tons/MMBtu)	Energy Input (MMBtu/yr)	CO <sub>2e</sub> (Metric Tons/yr)
S-1131-970	0.0529	342,792	18,134
S-1131-973	0.0529	355,435	18,803
<b>Total</b>			<b>36,937</b>

Annual Emissions: Lease C Fee lease, Permit Units S-1131-974 & '-1079			
Permit Unit	EF <sub>CO2e</sub> (Metric Tons/MMBtu)	Energy Input (MMBtu/yr)	CO <sub>2e</sub> (Metric Tons/yr)
S-1131-974	0.0529	398,601	21,086
S-1131-1079	0.0529	241,308	12,765
<b>Total</b>			<b>33,851</b>

**E. Post Project Potential to Emit (PE2)**

As discussed above, the subject equipment has been permanently shut down and the PTOs were surrendered. No other equipment has taken the place of the turbines as a source of steam in the Kern River oilfield. 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.

ERCs eligible for banking = HAE – PE2

ERC Certificate S-4113-24: Lease A Fee lease, Permit Units S-1131-970 & '-973		
HAE (metric ton/year)	PE2 (metric ton/year)	CO <sub>2e</sub> eligible for banking (metric ton/year)
36,937	0	36,937

ERC Certificate S-4114-24: Lease C Fee lease, Permit Units S-1131-974 & '-1079		
HAE (metric ton/year)	PE2 (metric ton/year)	CO <sub>2e</sub> eligible for banking (metric ton/year)
33,851	0	33,851



## VI. COMPLIANCE:

Per District Rule Section 4.5, the following criteria must be met in order to deem such reductions eligible for banking:

- 4.5.1** The greenhouse gas emission reduction must have actually occurred on or after January 1, 2005, except as allowed in specific CARB approved GHG emission reduction project protocols.

The emission reductions occurred when the PTO was surrendered on March 8, 2011. As the emission reduction occurred after 1/1/05, this criteria has been satisfied.

- 4.5.2** The greenhouse gas emission reductions must have occurred within the San Joaquin Valley Unified Air Pollution Control District.

The emissions occurred at Kern River Oilfield within Chevron's Kern County Heavy Oil Central stationary source. Since this location is within the District, this criteria has been satisfied.

- 4.5.3** The greenhouse gas emission reductions are real, surplus, permanent, quantifiable, and enforceable, except as provided in Section 4.5.5.

### **Real:**

The GHG emission reductions were generated by the shutdown of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974). The real emissions were calculated from actual historic fuel-use data and recognized emission factors. The Solar gas turbines have been removed from service. Therefore, the emission reductions are real.

### **Surplus:**

The facility is subject to the CARB cap and trade regulation; however, the reductions occurred prior January 1, 2012; therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.1.

The facility is subject to the CARB cap and trade regulation; however, the reductions occurred prior to the baseline period of cap and trade. 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 Certificates will be identified according to Section 6.15.3 below.

**Permanent:**

The gas turbines have been shut down, removed, and the PTOs have been surrendered.

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. Then 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.

Chevron has selected California as the geographical boundary for which the emission reduction is permanent. Chevron has provided information verifying that the total oil production in the state of California has been in decline since 1985 (see graph in Appendix C). Additionally, Chevron is subject to the California Cap-and-Trade regulation which requires Chevron to reduce or mitigate a permanent reduction in GHG emissions. The combination of the decline in oil production in California and the reductions required by California's Cap-and-Trade regulation verify that the reductions are permanent within California. The geographical boundary for the ERCs will be the State of California and the ERC will include the following identifier:

"Shutdown of the gas turbines are 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 gas turbines have 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.

- 4.5.4** Greenhouse gas emission reductions are calculated as the difference between the historic annual average greenhouse gas emissions (as CO<sub>2</sub>E) calculated using the consecutive 24 month period immediately prior to the date the emission reduction occurred, 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, and the potential greenhouse gas emissions (as CO<sub>2</sub>E) after the project is complete, except as provided in section 4.5.5.

The GHG emission reductions were calculated according to the baseline period identified above. Since this is a permanent shutdown of the steam turbines, with none of the load being shifted to other units in California, there is no post-project potential to emit GHG.

- 4.5.5** Greenhouse gas 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.

- 4.5.6** Emission reduction credits shall be made enforceable through permit conditions. If the District, pursuant to state laws, is prohibited from permitting the emission unit, the source creating the greenhouse gas emission reduction shall execute a legal binding contract with the District which ensures that the emission reductions will be generated in accordance with the provisions of this rule, and shall continue for the reasonably

The steam turbines held a legal District operating permit. That permit has been surrendered to the District. Since the operation of the steam turbines 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 original greenhouse gas ERC application was submitted on 11/30/10 as part of project S1105004, therefore the application is timely.

**Section 6.15** specifies the registration requirements for GHG ERCs.

**Section 6.15.13** requires, the 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:**

After public notice, comments and review, issue ERCs to Chevron USA in the amounts shown below:

ERC S-4113-24, Lease A Fee lease, Permit Units S-1131-970 & '-973:

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4113-24	CO <sub>2</sub> e	36,937 metric tons/year

ERC S-3604, Lease C Fee lease, Permit Units S-1131-974 & '-1079:

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4114-24	CO <sub>2</sub> e	33,851 metric tons/year

**Appendix A**

**Permits S-1131-970, '-973, '-974 , and '-1079**

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-970-9

EXPIRATION DATE: 02/28/2006

SECTION: 25 TOWNSHIP: 28S RANGE: 27E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #1 (NORTH UNIT) SOLAR CENTAUR TYPE H, 62.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR  
- LEASE FEE A

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FERC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
4. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry), [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
9. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records, [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a), (b) and District Rule 4703, 6.2.4] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
S-1131-970-91 Exp 12 2003 (1) 44AM - MARAGONG

11. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] Federally Enforceable Through Title V Permit
12. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
14. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit
15. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
16. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
17. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
22. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(c), District NSR Rule] Federally Enforceable Through Title V Permit
23. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
24. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
25. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
26. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
S-1131-970-9 Rev 12/03 11:00AM - 10/10/04

27. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H2O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.0031 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or VOC: 0.010 lb/MMBTU. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
34. Except during periods of thermal stabilization or reduced load, CO emissions rate shall not exceed 65.0 ppmv @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]
36. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SOx (as SO2): 3.9 lb/day, NOx (as NO2): 162.2 lb/day, VOC: 12.6 lb/day, or CO: 183.6 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(e), (f); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: 8-1131-973-9

EXPIRATION DATE: 02/28/2006

SECTION: NE6 TOWNSHIP: 29S RANGE: 28E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #1 (WEST) SOLAR CENTAUR TYPE H, 52.4 MM BTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE B

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FBRC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
4. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7B or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4]
8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
9. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a), (b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
11. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
8-1131-973-9; Rev 12 2003 TO 10-AM - UNAPPROVED

12. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
14. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)]
15. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
16. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
17. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
22. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(c), District NSR Rule] Federally Enforceable Through Title V Permit
23. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit.
24. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
25. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
26. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] Federally Enforceable Through Title V Permit
27. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of permit anniversary date. [District Rule 1081] 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.

29. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule]
31. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H<sub>2</sub>O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SO<sub>x</sub> (as SO<sub>2</sub>): 0.0031 lb/MMBTU, NO<sub>x</sub> (as NO<sub>2</sub>): 0.129 lb/MMBTU or VOC: 0.010 lb/MMBTU. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
34. Except during periods of thermal stabilization or reduced load, CO emissions rate shall not exceed 65.0 ppmv @ 15% O<sub>2</sub>. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Except during periods of thermal stabilization or reduced loads, NO<sub>x</sub> emission rate shall not exceed 35 ppmv at 15% O<sub>2</sub> on a 3-hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]
36. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SO<sub>x</sub> (as SO<sub>2</sub>): 3.9 lb/day, NO<sub>x</sub> (as NO<sub>2</sub>): 162.2 lb/day, VOC: 12.6 lb/day, or CO: 183.6 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: 8-1131-974-8

EXPIRATION DATE: 02/28/2008

SECTION: NE30 TOWNSHIP: 28S RANGE: 28E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #2 (EAST): SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MV, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE C

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FERC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall not exceed a NOx emission rate of 35 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
6. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
10. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
8-1131-974-8; 8-1131-974-9; 8-1131-974-10

12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NO<sub>x</sub> concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] Federally Enforceable Through Title V Permit
13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NO<sub>x</sub> output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
15. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit
16. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
17. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(e)] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine shall be equipped with water injection system for NO<sub>x</sub> control. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
23. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(e), District NSR Rule] Federally Enforceable Through Title V Permit
24. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
25. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
26. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
27. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] 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.

28. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit
29. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory annually within 60 days of permit anniversary date. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
30. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H2O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
33. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.0031 lb/MMBTU, NOx (as NO2): 35 ppmv @ 15% O2, VOC: 0.010 lb/MMBTU, or CO: 57.0 ppmv @ 15% O2. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
35. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SOx (as SO2): 3.9 lb/day, NOx (as NO2): 163.4 lb/day, VOC: 12.6 lb/day, or CO: 162.2 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

## San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-1079-8

EXPIRATION DATE: 02/28/2006

SECTION: NE6 TOWNSHIP: 29S RANGE: 28E

### EQUIPMENT DESCRIPTION:

COGENERATION UNIT #1 (FEE C LEASE - WEST UNIT) SOLAR CENTAUR 50-T5901S, 48.7 MMBTU/HR GAS FIRED DOE CERAMIC GTB, 4.1 MW, WITH LUBE OIL MIST ELIMINATOR, UNFIRED HEAT RECOVERY STEAM GENERATOR, AND CONTINUOUS MONITORING SYSTEM.

### PERMIT UNIT REQUIREMENTS

1. Gas turbine shall be fired exclusively with PUC or FERC regulated natural gas or natural gas documented to be of comparable quality. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator exhaust stack shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.003 lb/MMBTU, NOx (as NO2): 25 ppmv @ 15% O2, VOC: 0.016 lb/MMBTU, or CO: 33 ppmv @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions shall not exceed either of the following NSPS Subpart GG limits (1 hour standard): NOx (as NO2): 171 ppmvd @ 15% O2, or SOx (as SO2): 150 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit
7. Permittee shall satisfy all applicable requirements of District Rule 4001, New Source Performance Standards - Subpart GG and notification and reporting requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
8. Compliance source testing for NOx, CO and demonstrated percent efficiency shall be conducted within 60 days of initial startup, and not less than once every 12 months for each mode of operation (standard operation and each experimental mode of operation). [District Rule 4703] Federally Enforceable Through Title V Permit
9. Compliance source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
10. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District 1081] Federally Enforceable Through Title V Permit
11. 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
12. Compliance with SOx emission limits shall be demonstrated by fuel gas sulfur content analysis at the time of NOx testing. Sulfur testing is not required for PUC or FERC regulated natural gas. [District Rule 1081] 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.

Facility Name: CHEVRON USA, INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
9-1131-1770-1 Rev 4 2000 10 23AM 0 7497228

13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or EPA Method 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Methods 3, 3A or 20, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
14. Permittee shall maintain onsite for a period of at least five years accurate daily records of Predictive Emissions Monitoring System (PEMS) gas turbine engine exhaust NOx concentrations and such records shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Permittee's written request for approval of experimental components and operating conditions shall include at minimum the following information: components to be installed and conditions for operation, expected duration of operation, and description of, and justification for, expected emissions and maximum heat input rate. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
16. Permittee's request for approval of experimental components and operating conditions shall be submitted to the District at least 30 days prior to the initial planned installation date. The permittee shall also notify the District at least 15 days prior to the initial actual installation of the experimental components or start of operating conditions. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
17. Permittee shall notify the District, in writing, of turbine operating mode (standard or experimental) no later than 48 hours after changing mode of operation. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
18. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
19. Operator shall not exceed a NOx emission rate of: A. (If Rating <10 MW) 42 ppmvd @ 15% O2, excluding the thermal stabilization periods or reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2); District Rule 4703, 5.1.1] Federally Enforceable Through Title V Permit
20. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Kern County Rule 108.1; District Rule 1081] Federally Enforceable Through Title V Permit
21. The HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
22. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
23. The operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703, 5.1.1. [40 CFR 60.332(a),(b) and 4703, 5.1.1] Federally Enforceable Through Title V Permit
24. Operations during periods of startup and shutdown shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. Operation during periods of malfunction shall not constitute representative conditions for the purpose of determining compliance with emission limits based on 40 CFR 60.8 [40 CFR 60.8(o)] Federally Enforceable Through Title V Permit
25. If the turbine is fired on PUC or FERC-regulated natural gas or natural gas documented to be of comparable quality, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop times, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and 4703, 6.2.4] Federally Enforceable Through Title V Permit
27. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] 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.



28. Permittee shall maintain onsite for a period of at least five years accurate records of daily fuel consumption, daily fuel sulfur content, and daily fuel nitrogen content and shall make such records readily available for District inspection upon request. Daily monitoring of fuel sulfur and nitrogen contents is not required for PUC or FERC regulated natural gas. [District Rules 4001 and 2201] Federally Enforceable Through Title V Permit

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

**Appendix B**  
**Fuel Use Records**

Kern River Fee Cogen Operational Data

Month	A Fee #1 S-1131-970			A Fee #2 S-1131-973			C Fee #2 S-1131-974			C Fee #1 S-1131-1079		
	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu
		(btu/s cf)			(btu/s cf)			(btu/scf)			(btu/sc f)	

Kern River Fee Cogen Operational Data

Month	A Fee #1 S-1131-970			A Fee #2 S-1131-973			C Fee #2 S-1131-974			C Fee #1 S-1131-1079		
	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu
Oct-05	3,137	1,042	3,269	3,077	1,042	3,206	32,271	1,051	33,917	32,433	1,051	34,087
Nov-05	0	1050	0	0	1050	0	16,934	1,053	17,832	26,210	1,053	27,599
Dec-05	0	1062	0	0	1062	0	33,820	1,053	35,612	0	1,053	0
Jan-06	3,410	1,047	3,570	4,498	1,047	4,709	0	1,053	0	0	1,053	0
Feb-06	30,205	1,054	31,836	31,322	1,054	33,013	29,224	1,054	30,802	29,293	1,054	30,875
Mar-06	28,721	1,050	30,157	30,302	1,050	31,817	29,528	1,050	31,004	29,860	1,050	31,353
Apr-06	26,070	1,046	27,269	27,291	1,046	28,546	27,045	1,046	28,289	26,771	1,046	28,002
May-06	26,070	1,045	27,243	34,170	1,045	35,708	33,281	1,045	34,779	31,263	1,045	32,670
Jun-06	31,873	1,047	33,371	32,527	1,047	34,056	32,520	1,047	34,048	32,068	1,047	33,575
Jul-06	30,728	1,052	32,326	31,705	1,052	33,354	32,607	1,052	34,303	31,633	1,052	33,278
Aug-06	32,875	1,053	34,617	33,988	1,053	35,789	33,072	1,053	34,825	32,977	1,053	34,725
Sep-06	31,313	1,052	32,941	32,365	1,052	34,048	32,041	1,052	33,707	31,708	1,052	33,357
Oct-06	32,877	1,051	34,554	33,730	1,051	35,450	32,271	1,051	33,917	32,433	1,051	34,087
Nov-06	18,053	1,053	19,010	25,820	1,053	27,188	16,934	1,053	17,832	26,210	1,053	27,599
Dec-06	21,216	1,053	22,340	11,682	1,053	12,301	33,820	1,053	35,612	0	1,053	0
Jan-07	30,302	1,051	31,847	7,100	1,051	7,462	29,326	1,051	30,822	0	1,053	0
Feb-07	29,731	1,054	31,336	30,916	1,054	32,585	30,345	1,054	31,984	1,865	1,051	1,960
Mar-07	31,080	1,040	32,323	32,740	1,040	34,050	33,266	1,040	34,597	26,366	1,040	27,410
Apr-07	28,359	1,045	29,635	33,124	1,045	34,615	31,864	1,045	33,298	34,116	1,045	35,651
May-07	33,077	1,045	34,565	34,298	1,045	35,841	33,588	1,045	35,099	35,184	1,045	36,767
Jun-07	25,250	1,043	26,336	30,918	1,043	32,247	31,125	1,043	32,463	31,279	1,043	32,624
Jul-07	30,825	1,045	32,212	34,251	1,045	35,792	33,766	1,045	35,285	32,875	1,045	34,354
Aug-07	32,795	1,049	34,402	33,938	1,049	35,601	33,926	1,049	35,588	33,543	1,049	35,187
Sep-07	31,519	1,046	32,969	32,809	1,046	34,318	32,253	1,046	33,737	30,566	1,046	31,972
Oct-07	32,994	1,048	34,578	34,395	1,048	36,046	34,315	1,048	35,962	17,108	1,048	17,929
Nov-07	31,831	1,051	33,454	33,269	1,051	34,966	33,407	1,051	35,111	92	1,051	97
Dec-07	7,682	1,053	8,089	25,576	1,053	26,932	30,506	1,053	32,123	568	1,053	598
Jan-08	29,802	1,051	31,322	32,372	1,051	34,023	30,573	1,051	32,132	1,871	1,051	1,966
Feb-08	29,972	1,044	31,291	29,368	1,044	30,660	31,119	1,044	32,488	87	1,044	91
Mar-08	32,445	1,040	33,743	33,618	1,040	34,963	33,424	1,040	34,761	6,664	1,040	6,931

Apr-08	31,911	1,048	33,443	32,899	1,048	34,478	31,861	1,048	33,390	20,844	1,048	21,845
May-08	32,618	1,042	33,988	34,408	1,042	35,853	32,740	1,042	34,115	586	1,042	611
Jun-08	31,321	1,048	32,824	33,394	1,048	34,997	24,507	1,048	25,683	0	1,048	0
Jul-08	17,555	1,047	18,380	15,712	1,047	16,450	0	1,048	0	0	1,047	0
Aug-08	0	1,047	0	0	1,037	0	0	1,048	0	0	1,047	0
Sep-08	0	1,044	0	0	1,044	0	0	1,044	0	0	1,044	0
Oct-08	0	1,036	0	0	1,036	0	0	1,036	0	0	1,036	0
Nov-08	0	1,037	0	0	1,037	0	0	1,037	0	0	1,037	0
Dec-08	0	1,047	0	0	1,047	0	0	1,047	0	0	1,051	0
Jan-09	0	1,040	0	0	1,040	0	0	1,040	0	0	1040	0
Feb-09	17,396	1,042	18,127	16,581	1,042	17,277	0	1,042	0	0	1042	0
Mar-09	3,760	1,034	3,888	1,183	1,034	1,223	0	1,034	0	0	1034	0
Apr-09	0	1,036	0	0	1,036	0	0	1,036	0	0	1036	0
May-09	0	1,037	0	0	1,037	0	11,482	1,037	11,907	0	1037	0
Jun-09	0	958	0	13,773	958	13,195	4,298	1,035	4,448	0	1035	0
Jul-09	41,859	919	38,468	41,524	919	38,161	27,239	938	25,550	0	938	0
Aug-09	20,939	976	20,436	29,768	976	29,054	30,088	966	29,065	0	966	0
Sep-09	32,338	1,038	33,567	31,859	1,038	33,070	21,676	1,038	22,500	0	1038	0
Oct-09	34,762	1,036	36,013	33,796	1,036	35,013	29,594	1,036	30,659	0	1036	0
Nov-09	32,876	1,031	33,895	32,022	1,031	33,015	30,255	1,031	31,193	0	1031	0
Dec-09	30,667	1,030	31,587	29,039	1,030	29,910	25,168	1,030	25,923	0	1030	0
Jan-10	33,733	1,031	34,779	32,687	1,031	33,700	21,470	1,031	22,136	0	1031	0
Feb-10	30,908	1,031	31,866	30,458	1,031	31,402	29,239	1,031	30,145	0	1031	0
Mar-10	32,885	1,036	34,069	33,072	1,036	34,263	33,221	1,036	34,417	0	1036	0
Apr-10	31,570	1,032	32,580	28,852	1,032	29,775	31,099	1,032	32,094	0	1032	0
May-10	33,975	1,033	35,096	32,746	1,033	33,827	33,695	1,033	34,807	0	1033	0
Jun-10	19,874	1,037	20,609	19,659	1,037	20,386	20,018	1,037	20,759	0	1037	0
Jul-10	0	1,037	0	0	1,037	0	0	1,037	0	0	1,037	0
Aug-10	0	1,035	0	0	1,037	0	0	1,037	0	0	1,037	0
Sep-10	0	1,036	0	0	1,037	0	0	1,037	0	0	1,037	0
Oct-10	0	1,036	0	0	1,037	0	0	1,037	0	0	1,037	0

60-Mo

Avg MMBtu =

1,039

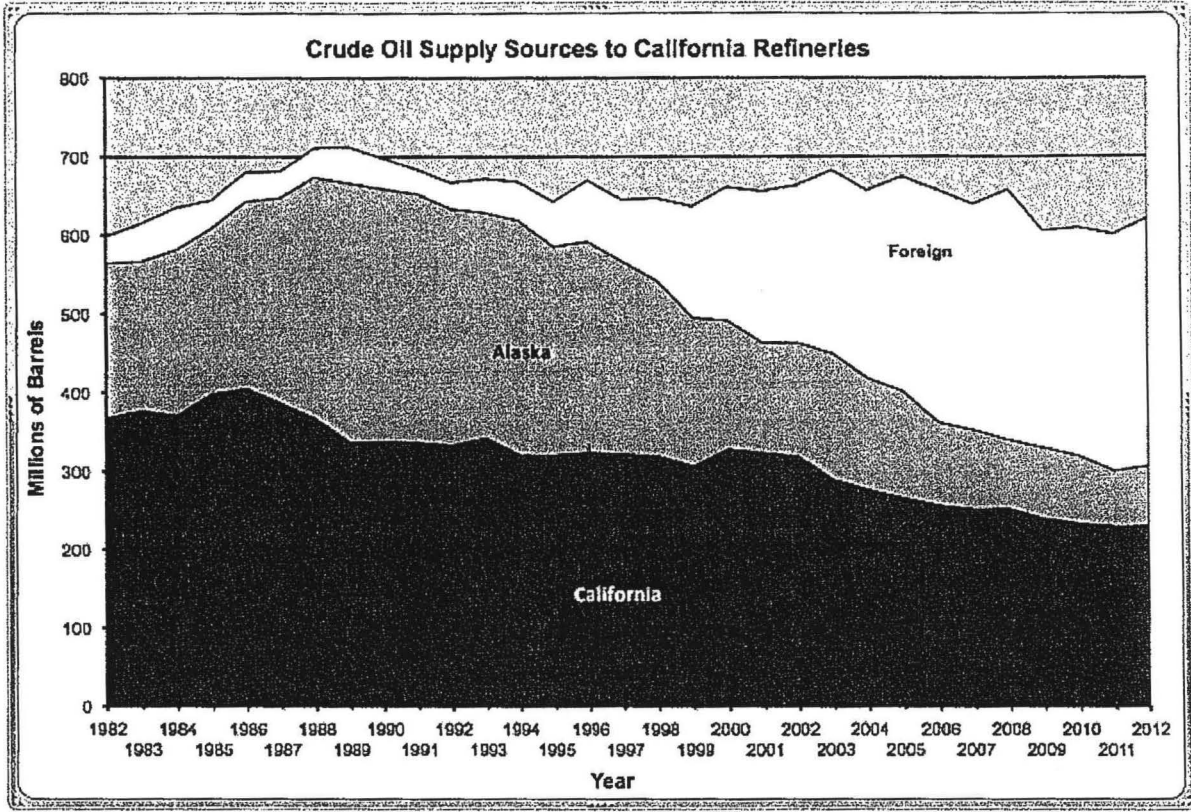
1,039

1,040

1,041

From previous month

**Appendix C**  
**Oil Production Graph**



[http://energyalmanac.ca.gov/petroleum/statistics/crude oil receipts.html](http://energyalmanac.ca.gov/petroleum/statistics/crude%20oil%20receipts.html)

**Appendix D**  
**Baseline Period Determination**

Fee A	S-1131-970 MMBtu	S-1131-973 MMBtu	Total MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	80 month *
1999	443,172	457,105	900,277				
2000-2005	2,302,782	2,381,482	4,684,224				
Oct -05 *	3,268	3,208	6,475				
Nov -05 *	-	-	-				
Dec -05 *	-	-	-				
Jan-08	3,570	4,709	8,280				
Feb-08	31,838	33,013	64,849				
Mar-06	30,157	31,817	61,974				
Apr-06	27,268	28,546	55,816				
May-08	27,243	35,708	62,951				
Jun-08	33,371	34,056	67,427				
Jul-06	32,326	33,364	65,680				
Aug-06	34,617	35,789	70,407				
Sep-08	32,941	34,048	66,989				
Oct-08	34,654	35,450	70,004				
Nov-08	19,010	27,188	46,198				
Dec-06	22,340	12,301	34,642				
Jan-07	31,847	7,482	39,310				
Feb-07	31,336	32,585	63,922				
Mar-07	32,323	34,050	66,373				
Apr-07	29,635	34,615	64,250				
May-07	34,585	35,841	70,407				
Jun-07	28,338	32,247	58,583				
Jul-07	32,212	35,792	68,004				
Aug-07	34,402	35,601	70,003				
Sep-07	32,989	34,318	67,287	59,207			
Oct-07	34,578	36,046	70,624	59,726			
Nov-07	33,454	34,968	68,420	60,104			
Dec-07	8,089	26,932	35,021	59,059			
Jan-08	31,322	34,023	65,345	61,437			
Feb-08	31,291	30,860	61,951	81,316			
Mar-08	33,743	34,963	68,706	61,597			
Apr-08	33,443	34,478	67,921	82,101			
May-08	33,988	35,853	69,841	62,388			
Jun-08	32,824	34,987	67,821	62,404			
Jul-08	18,360	16,450	34,831	61,119			
Aug-08	-	-	-	58,185			
Sep-08	-	-	-	55,394	58,177		
Oct-08	-	-	-	52,477	54,525		
Nov-08	-	-	-	50,552	52,967		
Dec-08	-	-	-	49,109	51,495		
Jan-09	-	-	-	47,471	51,265		

\* shown separately as these months are part of the preceding 5 year period, but fuel use included in 2000-2005 total

This preceding 24 month period has an average monthly fuel use closest to the historic monthly fuel use.

Therefore, the 24 month period Sep 2006 - Aug 2008 most closely represent normal source operation. As such, the baseline period is Sep 2006 - Aug 2008.

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.



Fee A	S-1131-970 MMBtu	S-1131-973 MMBtu	Total MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Feb-09	18,127	17,277	35,404	46,283	50,447		
Mar-09	3,888	1,223	5,111	43,730	48,868		
Apr-09	-	-	-	41,053	47,318		
May-09	-	-	-	38,120	45,569		
Jun-09	-	13,195	13,195	36,228	44,062		
Jul-09	38,468	38,161	76,629	36,588	44,367		
Aug-09	20,436	29,054	49,490	35,733	43,786		
Sep-09	33,567	33,070	66,636	35,706	43,776	46,673	
Oct-09	36,013	35,013	71,026	35,723	43,804	47,203	
Nov-09	33,895	33,015	66,910	35,660	44,379	47,622	
Dec-09	31,587	29,910	61,497	36,763	45,125	47,911	
Jan-10	34,779	33,700	68,479	36,894	45,936	49,165	
Feb-10	31,866	31,402	63,268	36,949	45,918	49,132	
Mar-10	34,069	34,263	68,331	36,933	45,972	49,265	
Apr-10	32,580	29,775	62,356	36,701	45,919	49,401	
May-10	35,096	33,827	68,923	36,663	45,878	49,525	
Jun-10	20,609	20,386	40,996	35,545	45,390	48,975	
Jul-10	-	-	-	34,094	43,501	47,606	
Aug-10	-	-	-	34,094	41,556	46,140	
Sep-10	-	-	-	34,094	39,687	44,744	
Oct-10	-	-	-	34,094	37,725	43,286	46,070

Average monthly fuel use  
over 142 months of data provided  
Normal source operation (NSO) 58,145

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

Fee C	S-1131-974 MMBtu	S-1131-1079 MMBtu	Total Lease MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Jan - Dec 1999	477,982	480,187	938,129				
2000-2005	2,340,058	2,308,193	4,648,251				
Oct -05 *	33,917	34,087	68,004				
Nov - 05 *	17,832	27,599	45,431				
Dec - 05 *	35,612	-	35,612				
Jan-06	-	-	-				
Feb-06	30,802	30,875	61,677				
Mar-06	31,004	31,353	62,357				
Apr-06	28,288	28,002	56,292				
May-06	34,779	32,670	67,448				
Jun-06	34,048	33,575	67,624				
Jul-06	34,303	33,278	67,580				
Aug-06	34,825	34,725	69,550				
Sep-06	33,707	33,357	67,064				
Oct-06	33,917	34,087	68,004				
Nov-06	17,832	27,599	45,431				
Dec-06	35,612	0	35,612				
Jan-07	30,822	0	30,822				
Feb-07	31,984	1,860	33,844				
Mar-07	34,597	27,410	62,007				
Apr-07	33,298	35,651	68,949				
May-07	35,099	36,767	71,867				
Jun-07	32,483	32,824	65,307				
Jul-07	35,285	34,354	69,639				
Aug-07	35,588	35,187	70,775				
Sep-07	33,737	31,972	65,709	58,520			
Oct-07	35,982	17,928	53,910	65,932			
Nov-07	35,111	97	35,208	55,508			
Dec-07	32,123	598	32,721	55,386			
Jan-08	32,132	1,968	34,100	66,807			
Feb-08	32,488	91	32,579	55,594			
Mar-08	34,781	6,931	41,712	54,733			
Apr-08	33,390	21,845	55,235	64,689			
May-08	34,115	611	34,726	53,326			
Jun-08	25,683	0	25,683	51,578			
Jul-08	0	0	0	48,782			
Aug-08	0	0	0	45,884			
Sep-08	0	0	0	43,070	47,287		
Oct-08	0	0	0	40,236	45,398		
Nov-08	0	0	0	38,344	44,136		
Dec-08	0	0	0	36,860	43,146		
Jan-09	0	0	0	35,575	43,146		

\* shown separately as these months are part of the preceding 5 year period, but fuel use included in 2000-2005 total

This period has an average monthly fuel use closest to the historic monthly fuel use.

Therefore, the 24 months period Sep 2006 Aug 2008 most closely represent normal source operation. As such, the baseline period is Sep 2006 - Aug 2008.

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

Fee C	S-1131-974 MMBtu	S-1131-1079 MMBtu	Total Lease MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Feb-09	0	0	0	34,161	41,433		
Mar-09	0	0	0	31,577	39,701		
Apr-09	0	0	0	28,705	38,137		
May-09	11,907	0	11,907	26,206	36,595		
Jun-09	4,448	0	4,448	23,680	34,840		
Jul-09	25,550	0	25,550	21,843	33,672		
Aug-09	29,065	0	29,065	20,105	32,548		
Sep-09	22,500	0	22,500	18,304	31,310	37,412	
Oct-09	30,659	0	30,659	17,336	30,272	36,834	
Nov-09	31,193	0	31,193	17,169	29,877	36,338	
Dec-09	25,923	0	25,923	16,886	29,608	36,136	
Jan-10	22,136	0	22,136	16,387	29,366	36,597	
Feb-10	30,145	0	30,145	16,286	29,261	35,940	
Mar-10	34,417	0	34,417	15,983	28,495	35,358	
Apr-10	32,094	0	32,094	15,019	27,471	34,854	
May-10	34,807	0	34,807	15,022	26,441	34,174	
Jun-10	20,759	0	20,759	14,817	25,210	33,197	
Jul-10	0	0	0	14,817	23,276	31,769	
Aug-10	0	0	0	14,617	21,310	30,341	
Sep-10			0	14,817	19,484	28,943	
Oct-10			0	14,817	17,987	27,527	33,165

Average monthly fuel use  
over 142 months of data provided  
Normal source operation (NSO) 52,783

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

**Appendix E**  
**Draft ERCs**

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4113-24

ISSUED TO: CHEVRON USA INC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: HEAVY OIL CENTRAL  
KERN COUNTY, CA  
SECTION: 25 TOWNSHIP: 28S RANGE: 27E

For CO2E Reduction In The Amount Of:

36937 metric tons / year

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

Shut down of two (S-1131-970 & '973) Solar gas turbines verified as permanent within the State of California

Emission Reduction Qualification Criteria

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

**Emission Reduction Credit Certificate**

**S-4114-24**  
**DRAFT**

**ISSUED TO:** CHEVRON USA INC  
**ISSUED DATE:** <DRAFT>  
**LOCATION OF REDUCTION:** HEAVY OIL CENTRAL  
KERN COUNTY, CA  
**SECTION:** 25 **TOWNSHIP:** 28S **RANGE:** 27E

**For CO2E Reduction In The Amount Of:**

**33851 metric tons / year**

**Conditions Attached**

**Method Of Reduction**

- Shutdown of Entire Stationary Source**  
 **Shutdown of Emissions Units**  
 **Other**

**Shut down of two (S-1131-974 & '-1073) Solar gas turbines verified as permanent within the State of California**

**Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director / APCO

**DRAFT**  
\_\_\_\_\_  
David Warner, Director of Permit Services

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

The analysis of the regulatory basis for this proposed action, Project #S-1120775, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted by January 21, 2014 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

**AVISO DE DECISIÓN PRELIMINAR  
PARA LA PROPUESTA OTORGACIÓN DE  
CERTIFICADOS DE CRÉDITOS DE REDUCCIÓN DE EMISIONES**

POR EL PRESENTE SE NOTIFICA que el Distrito Unificado para el Control de la Contaminación del Aire del Valle de San Joaquín está solicitando comentarios del público para la propuesta emisión de Certificados de Créditos de Reducción de Emisiones (ERC, por sus siglas en inglés) a Chevron USA, Inc. para la clausura de cuatro turbinas de gas marca Solar (S-1131-970, -973, -974 -1073), en los campos de petróleo Kern River. La cantidad de ERCs propuestas para almacenar es 70,813 toneladas métricas de CO<sub>2</sub>e/año.

El análisis de la base regulatoria para esta acción propuesta, Proyecto #S-1120775, está disponible para la inspección pública en [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) y en cualquiera de las oficinas del Distrito. Para más información en Español, por favor comuníquese con el Distrito al (559) 230-6000. Comentarios por escrito acerca de este propuesto permiso inicial deben de ser sometidos antes del 21 de Enero del 2014 a **DAVID WARNER, DIRECTOR DEL DEPARTAMENTO DE PERMISOS, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

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# PROOF OF PUBLICATION

SD

The BAKERSFIELD CALIFORNIAN  
P. O. BOX 440  
BAKERSFIELD, CA 93302

Ad Number: 13381274 PO #: 2568990  
Edition: TBC Run Times 1  
Class Code Legal Notices  
Start Date 12/19/2013 Stop Date 12/19/2013  
Billing Lines Inches  
Total Cost Account 104107A  
Billing CAL NEWSPAPER SERVICE  
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LOS ANGELES, CA 90060

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STATE OF CALIFORNIA  
COUNTY OF KERN

Solicitor I.D.: 0

Permits Services  
SJVAPCD

First Text

NOTICE OF PRELIMINARY DECISION FOR THE P

I AM A CITIZEN OF THE UNITED STATES AND A RESIDENT OF THE COUNTY AFORESAID: I AM OVER THE AGE OF EIGHTEEN YEARS, AND NOT A PARTY TO OR INTERESTED IN THE ABOVE ENTITLED MATTER. I AM THE ASSISTANT PRINCIPAL CLERK OF THE PRINTER OF THE BAKERSFIELD CALIFORNIAN, A NEWSPAPER OF GENERAL CIRCULATION. PRINTED AND PUBLISHED DAILY IN THE CITY OF BAKERSFIELD COUNTY OF KERN,

Ad Number 13381274

AND WHICH NEWSPAPER HAS BEEN ADJUDGED A NEWSPAPER OF GENERAL CIRCULATION BY THE SUPERIOR COURT OF THE COUNTY OF KERN, STATE OF CALIFORNIA, UNDER DATE OF FEBRUARY 5, 1952, CASE NUMBER 57610; THAT THE NOTICE, OF WHICH THE ANNEXED IS A PRINTED COPY, HAS BEEN PUBLISHED IN EACH REGULAR AND ENTIRE ISSUE OF SAID NEWSPAPER AND NOT IN ANY SUPPLEMENT THEREOF ON THE FOLLOWING DATES, TO WIT: 12/19/13

ALL IN YEAR 2013

I CERTIFY (OR DECLARE) UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

Bmontoya

DATED AT BAKERSFIELD CALIFORNIA

12/19/13

Printed on 12/19/2013 at 9:26:05AM

NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED ISSUANCE OF EMISSION REDUCTION CREDITS  
NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Green House Gas Emission Reduction Credits to Chevron USA, Inc. for the shut down and removal of four Solar gas turbines (S-1131-970, -973, -1073, and -974), at Kern River oil field. The quantity of ERCs proposed for banking is 70,813 metric tons per year.

The analysis of the regulatory basis for this proposed action. Project #S-1120775, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted by January 21, 2014 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308. CNS-2568990#  
DECEMBER 19, 2013 (13381274)

92.13  
5-1131



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A. Signature

X



Agent

Addressee

B. Received by (Printed Name)

Jason S. Mansole

C. Date of Delivery

2-18-14

1. Article Addressed to:

Jason H. Donchin  
Chevron USA, Inc.  
PO Box 1392  
Bakersfield, CA 93302

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

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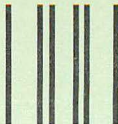
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2.

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ERC

5-1131

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PS Form 3800, August 2006 (Reverse) PSN 7530-02-000-9047

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Sent To	Chevron USA, Inc.
Street, / or PO B	PO Box 1392
City, Sta	Bakersfield, CA 93302
PS Form 3800, August 2006	
See Reverse for Instructions	

# PUBLIC NOTICE CHECK LIST

PROJECT #: S-1131 PROJECT #: S-1120775

REQST. COMPL.

ERC FINAL PUBLIC NOTICE  
 Newspaper Notice Emailed to Clerical (Check box and tab to generate Notice)  
 Send email to "OA-PublicNotices" containing the following:  
 SUBJECT: facility name, facility id#, project #, type of notice (prelim/final)  
 BODY: project description and why it is being noticed (Emission Reduction Credit banking)

**ENCLOSED DOCUMENTS REQUIRE:**

- Enter Correct Date, Print All Documents from File and Obtain Director's Signature and District Seal Embossed on ERC Certificates
- Email **FINAL** Newspaper Notice for Publication in Bakersfield Californian  
 Pub Date: 2/19
- Mail **FINAL** Notice Letter to Applicant by Certified Mail including the following attachments:
  - Original ERC Certificates
  - Newspaper Notice
- Email **FINAL** Public Notice package to EPA
- Email **FINAL** Public Notice package to CARB
- Email **FINAL** Newspaper Notice, Aviso en Español and Public Notice package to "webmaster"
- After posted on website, send email with weblink of Newspaper notice, Aviso en Español, and full public notice package to:
  - specific [C, S, or N] region **and** District wide permitting notification list-serves (both English and Spanish list serves)
  - facility specific distribution list, (AQE – enter email address from PAS facility details notifications tab, if none enter NONE below):  
None
- Mail the newspaper notice and aviso en español (NN/AE), or full public notice package (FPNP) to the persons on facility specific distribution list, as follows (entered by AQE, if none, enter NONE below):
  - NN/AE or  FPNP Name/address: none
  - NN/AE or  FPNP Name/address: none
- Send **FINAL** Public Notice package to EDMS
- Assign Mailing Date
- Other Special Instructions (please specify): \_\_\_\_\_

Date Completed [DATE COMPLETED] /By Steve Davidson

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SAN JOAQUIN VALLEY AIR POLL CONTROL DIST  
1990 E. GETTYSBURG AVE.  
FRESNO, CA 93726

CNS 2589618

## COPY OF NOTICE

Notice Type: GPN GOVT PUBLIC NOTICE  
Ad Description: Final ERC, S-1120775, Chevron, Bakersfield

To the right is a copy of the notice you sent to us for publication in the THE BAKERSFIELD CALIFORNIAN. Please read this notice carefully and call us with any corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

02/19/2014

### NOTICE OF FINAL ACTION FOR THE ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, -973, -1073, and -974) at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2e</sub> per year.

No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1120775 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (861) 392-5500. 2/19/14  
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THE DAILY RECORDER, SACRAMENTO	(916) 444-2355
THE INTER-CITY EXPRESS, OAKLAND	(510) 272-4747



\* A 0 0 0 0 0 3 3 3 9 2 4 9 \*

## Song Thao

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**From:** Song Thao  
**Sent:** Friday, February 14, 2014 2:15 PM  
**To:** Gerardo Rios (SJV\_T5\_Permits@epa.gov.); Mike Tollstrup (mtollstr@arb.ca.gov)  
**Subject:** Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775  
**Attachments:** Final ERC S-1120775.PDF; Newspaper.PDF

**Importance:** High

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2</sub>e per year.

**Song Thao**

---

**From:** Mail Delivery System <MAILER-DAEMON@mintra12.rtp.epa.gov>  
**To:** SJV\_T5\_Permits@epamail.epa.gov  
**Sent:** Friday, February 14, 2014 2:15 PM  
**Subject:** Expanded: Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775

**Your message has been delivered to the following groups:**

[SJV T5 Permits@epamail.epa.gov](mailto:SJV_T5_Permits@epamail.epa.gov)

Subject: Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775



## Song Thao

---

**From:** Microsoft Outlook  
**To:** Mike Tollstrup (mtollstr@arb.ca.gov)  
**Sent:** Friday, February 14, 2014 2:15 PM  
**Subject:** Relayed: Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775

**Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:**

Mike Tollstrup (mtollstr@arb.ca.gov) (mtollstr@arb.ca.gov)

Subject: Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775

## Song Thao

---

**From:** Song Thao  
**Sent:** Friday, February 14, 2014 2:16 PM  
**To:** WebTeam  
**Subject:** valleyair.org update: Final ERC Public Notice for Chevron USA, Inc. Facility S-1131 Project S-1120775  
**Attachments:** Final ERC S-1120775.PDF; Newspaper.PDF; Aviso.PDF

February 14, 2014 (Facility S-1131 Project S-1120775) NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2</sub>e per year.

[Newspaper Notice](#)

[Aviso](#)

[Public Notice Package](#)

## Song Thao

---

**From:** Song Thao  
**Sent:** Tuesday, February 18, 2014 11:54 AM  
**To:** All Region (Notices\_of\_Permitting\_Actions-All\_Regions@lists.valleyair.org); South (Notices\_of\_Permitting\_Actions-Southern\_Region@lists.valleyair.org)  
**Subject:** Public Notice on Permitting Action S-1120775

The District has posted a new permitting public notice. The public notice can be viewed on our website at: [http://www.valleyair.org/notices/Docs/2014/02-14-14\\_\(S-1120775\)/Newspaper.pdf](http://www.valleyair.org/notices/Docs/2014/02-14-14_(S-1120775)/Newspaper.pdf)

For a list of public notices and public notice packages, please visit our website at: [http://www.valleyair.org/notices/public\\_notices\\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices](http://www.valleyair.org/notices/public_notices_idx.htm#PermittingandEmissionReductionCreditCertificateNotices)

Thank you.

## Song Thao

---

**From:** Song Thao  
**Sent:** Tuesday, February 18, 2014 11:54 AM  
**To:** All Spanish (Avisos\_Sobre\_Acciones\_de\_Permisos-Todos@lists02.valleyair.org)  
**Subject:** Aviso Publico Sobre Acciones de Permisos S-1120775

El Distrito del Aire a publicado un nuevo aviso público de permiso. El aviso público se puede ver en nuestro sitio de web en: [http://www.valleyair.org/notices/Docs/2014/02-14-14\\_\(S-1120775\)/Aviso.pdf](http://www.valleyair.org/notices/Docs/2014/02-14-14_(S-1120775)/Aviso.pdf)

Para obtener una lista de avisos públicos y paquetes de avisos públicos, por favor visite nuestro sitio de web en: [http://www.valleyair.org/notices/public\\_notices\\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices](http://www.valleyair.org/notices/public_notices_idx.htm#PermittingandEmissionReductionCreditCertificateNotices)

Gracias

**AVISO DE DECISIÓN FINAL  
PARA LA OTORGACIÓN DE  
CERTIFICADOS DE REDUCCIÓN DE EMISIONES**

POR EL PRESENTE SE NOTIFICA que el Oficial para el Control de la Contaminación del Aire a otorgado Certificados de Reducción de Emisiones (ERCs, por sus siglas en inglés) a Chevron USA, Inc. por la reducción de emisiones generadas por la clausura de cuatro turbinas de gas marca Solar (S-1131-970, -973, -974, y -1073), en los campos de petróleo Kern River. La cantidad de ERCs que serán otorgadas es 70,788 toneladas métricas de CO<sub>2</sub>e/año.

No se recibieron comentarios acerca de este proyecto después del aviso de decisión preliminar del Distrito.

La revisión de la solicitud del Proyecto #S-1120775 está disponible para la inspección del público en [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), el DISTRITO PARA EL CONTROL DE LA CONTAMINACIÓN DEL AIRE DEL VALLE DE SAN JOAQUIN, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, y en cualquiera de las oficinas del Distrito. Para más información en Español, por favor comuníquese con el Distrito al (661) 392-5500.

**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2</sub>e per year.

No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1120775 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (661) 392-5500.



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



FEB 14 2014

Certified Mail

Jason H Donchin  
Chevron USA, Inc.  
PO Box 1392  
Bakersfield, CA 93302

**RE: Notice of Final Action – Emission Reduction Credits**  
**Facility Number: S-1131**  
**Project Number: S-1120775**

Dear Mr. Donchin:


The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974), at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2</sub>e per year.

Enclosed are the ERC Certificates and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the ERC Certificates was published on December 19, 2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on December 16, 2013. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,



David Warner  
Director of Permit Services

DW:SDD/st

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

## Emission Reduction Credit Certificate S-4113-24

ISSUED TO: CHEVRON USA INC  
ISSUED DATE: February 13, 2014  
LOCATION OF REDUCTION: HEAVY OIL CENTRAL  
KERN COUNTY, CA  
SECTION: 25 TOWNSHIP: 28S RANGE: 27E

**For CO<sub>2</sub>E Reduction In The Amount Of:**

**36937 metric tons / year**

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

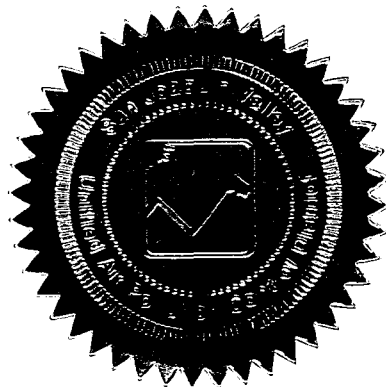
Shut down of two (S-1131-970 & '973) Solar gas turbines verified as permanent within the State of California

**Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director / APCO

  
David Warner, Director of Permit Services





Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

## Emission Reduction Credit Certificate S-4114-24

ISSUED TO: CHEVRON USA INC  
ISSUED DATE: February 13, 2014  
LOCATION OF REDUCTION: HEAVY OIL CENTRAL  
KERN COUNTY, CA  
SECTION: 25 TOWNSHIP: 28S RANGE: 27E

**For CO<sub>2</sub>E Reduction In The Amount Of:**

**33851 metric tons / year**

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

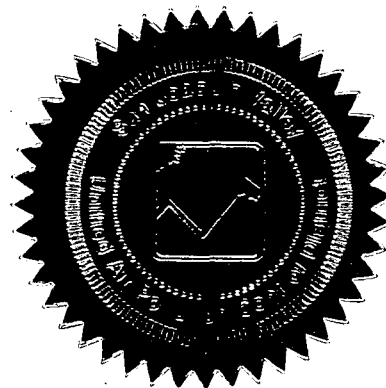
Shut down of two (S-1131-974 & '-1073) Solar gas turbines verified as permanent within the State of California

**Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director / APCO

  
\_\_\_\_\_  
David Warner, Director of Permit Services





Bakersfield Californian

Newspaper notice for publication in Bakersfield Californian and for posting on  
valleyair.org

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**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF  
EMISSION REDUCTION CREDITS**

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No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1120775 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (661) 392-5500.

**AVISO DE DECISIÓN FINAL  
PARA LA OTORGACIÓN DE  
CERTIFICADOS DE REDUCCIÓN DE EMISIONES**

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La revisión de la solicitud del Proyecto #S-1120775 está disponible para la inspección del público en [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), el DISTRITO PARA EL CONTROL DE LA CONTAMINACIÓN DEL AIRE DEL VALLE DE SAN JOAQUIN, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, y en cualquiera de las oficinas del Distrito. Para más información en Español, por favor comuníquese con el Distrito al (661) 392-5500.

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# PROOF OF PUBLICATION

The BAKERSFIELD CALIFORNIAN  
P. O. BOX 440  
BAKERSFIELD, CA 93302

CAL NEWSPAPER SERVICE  
PO BOX 60460  
LOS ANGELES, CA 90060

Ad Number: 13438831 PO #: 2589618  
Edition: TBC Run Times 1  
Class Code Legal Notices  
Start Date 2/19/2014 Stop Date 2/19/2014  
Billing Lines Inches  
Total Cost Account ICAL07A  
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Address PO BOX 60460  
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RECEIVED  
MAR 18 2014

STATE OF CALIFORNIA  
COUNTY OF KERN

I AM A CITIZEN OF THE UNITED STATES AND A RESIDENT OF THE COUNTY AFORESAID: I AM OVER THE AGE OF EIGHTEEN YEARS. AND NOT A PARTY TO OR INTERESTED IN THE ABOVE ENTITLED MATTER. I AM THE ASSISTANT PRINCIPAL CLERK OF THE PRINTER OF THE BAKERSFIELD CALIFORNIAN, A NEWSPAPER OF GENERAL CIRCULATION. PRINTED AND PUBLISHED DAILY IN THE CITY OF BAKERSFIELD COUNTY OF KERN.

AND WHICH NEWSPAPER HAS BEEN ADJUDGED A NEWSPAPER OF GENERAL CIRCULATION BY THE SUPERIOR COURT OF THE COUNTY OF KERN, STATE OF CALIFORNIA, UNDER DATE OF FEBRUARY 5, 1952, CASE NUMBER 57610: THAT THE NOTICE, OF WHICH THE ANNEXED IS A PRINTED COPY, HAS BEEN PUBLISHED IN EACH REGULAR AND ENTIRE ISSUE OF SAID NEWSPAPER AND NOT IN ANY SUPPLEMENT THEREOF ON THE FOLLOWING DATES, TO WIT: 2/19/14

ALL IN YEAR 2014

I CERTIFY (OR DECLARE) UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

*B. Montoya*

DATED AT BAKERSFIELD CALIFORNIA

*2/19/14*

Printed on 2/19/2014 at 8:44:40AM

Solicitor I.D.: 0 SJVUAPCD  
First Text  
NOTICE OF FINAL ACTION FOR THE ISSUANCE

Ad Number 13438831

**NOTICE OF FINAL ACTION FOR THE ISSUANCE OF EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA, Inc. for emission reductions generated by the shut down and removal of four Solar gas turbines (S-1131-970, -973, -1073, and -974), at the Kern River oilfield. The quantity of ERCs to be issued is 70,788 metric tons of CO<sub>2</sub>e per year.

No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1120775 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_kbr.htm](http://www.valleyair.org/notices/public_notices_kbr.htm), the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (661) 392-5500. 2/19/14 CNS-2589618#

*5-1131  
186-52*



\* A 0 0 0 0 0 3 3 5 4 4 9 7 \*

# PROJECT ROUTING FORM

FACILITY NAME: Chevron USA Inc

FACILITY ID: S-1131 PROJECT NUMBER: S-1120775

PERMIT #'s: \_\_\_\_\_

DATE RECEIVED: March 14, 2012

PRELIMINARY REVIEW	ENGR	DATE	SUPR	DATE
A. Application Deemed Incomplete	SOD	4-16-12	CF	4/16/12
Second Information Letter	SOD	5-10-13	CF	5/20/13
B. Application Deemed Complete	SOD	9-24-13	AD	9-24-13
C. Application Pending Denial				
D. Application Denied				

ENGINEERING EVALUATION	INITIAL	DATE
E. Engineering Evaluation Complete • Project triggering Federal Major Modification: <input type="checkbox"/> Yes AND Information entered into database (AirNet) <input checked="" type="checkbox"/> No (not Fed MMod) • District is Lead Agency for CEQA purposes AND the project GHG emissions increase exceeds 230 metric tons/year: <input type="checkbox"/> Yes AND Information Entered in database (AirNet) <input checked="" type="checkbox"/> Not Required	SOD	10-29-13
F. Supervising Engineer Approval	AD	10-31-13
G. Compliance Division Approval <input checked="" type="checkbox"/> Not Required		
H. Applicant's Review of Draft Authority to Construct Completed <input type="checkbox"/> 3-day Review <input type="checkbox"/> 10-day Review <input type="checkbox"/> No Review Requested		
I. Permit Services Regional Manager Approval	CF	12/10/13

DIRECTOR REVIEW <input type="checkbox"/> Not Required	INITIAL	DATE
J. Preliminary Approval to Director		
K. Final Approval to Director		



**Gregory E. Pritchett**  
Manager – Health,  
Environment and Safety

**San Joaquin Valley BU**  
Chevron North America  
Exploration and Production  
P.O. Box 1392  
Bakersfield, CA 93302

September 12, 2013

Mr. Leonard Scandura  
San Joaquin Valley APCD  
34946 Flyover Court  
Bakersfield, CA 93308

RECEIVED  
SEP 13 2013  
SJVAPCD  
Southern Region

**RE: Supplement to Additional Information for Banking Application Project S-1120775** *Stored*

Dear Mr. Scandura:

This letter a follow-up to Chevron U.S.A. Inc (CUSA) letter of August 22, 2013 responding to the District's request for additional information dated May 20, 2013 for the above referenced project to bank greenhouse gas emissions from the shutdown of four gas turbine engines (GTEs) located at the A and C Fee leases.

Chevron U.S.A. Inc's (CUSA's) previous letter provided information as to the geographic boundaries of the emission reductions for CUSA and stated that the reduction would be permanent for the State of California. This letter addresses the issue of permanence of oil production reductions in general for the State of California and how combustion emissions are not expected to increase without mitigation.

1. Oil Production In California Is Declining:

California oil field production has declined over the past thirty years and is approximately half of the amount produced in the 1980's. There have been no significant new oil discoveries in California during that time and the decline is expected to continue. Documentation of the decline is included as Attachment A.

2. Greenhouse Gas Emissions Will Not Increase Statewide:

CUSA and other companies with significant oil production are subject to the California Cap-and-Trade regulation for greenhouse gases. The regulation sets a declining cap on allowed emissions while employing market mechanisms to achieve emission reductions. In the cap-and-trade program, a limit, or cap is put on the amount of pollutants (i.e., GHGs) that can be emitted. The cap is implemented by creating allowances in a number equal to the cumulative emissions from all the covered sectors. These allowances may be auctioned, distributed for free, or allocated by some combination thereof. Sources in the capped sectors must report their emissions and must surrender allowances to match those emissions in accordance with the schedule in the regulation to achieve the reduced 2020 cap. Should oil production GHG emissions increase GHG allocations representing reductions from other covered sectors must be purchased and surrendered. Additional information on the Cap-and-Trade program is included as Attachment B.

Additional Information Banking Application  
Project S-1120775  
September 12, 2013

Please telephone Lance Ericksen at (661) 654-7145 if you have any questions or require additional clarification.

Sincerely,



Gregory E. Pritchett  
Manager – Health, Environment and Safety

RECEIVED

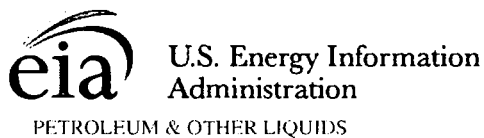
**SEP 13 2013**

SJVAPCD  
Southern Region

Attachments

Additional Information Banking Application  
Project S-1120775  
September 12, 2013

**Attachment A**  
**California Oil Production**



OVERVIEW **DATA** ANALYSIS & PROJECTIONS

GLOSSARY · FAQs ·

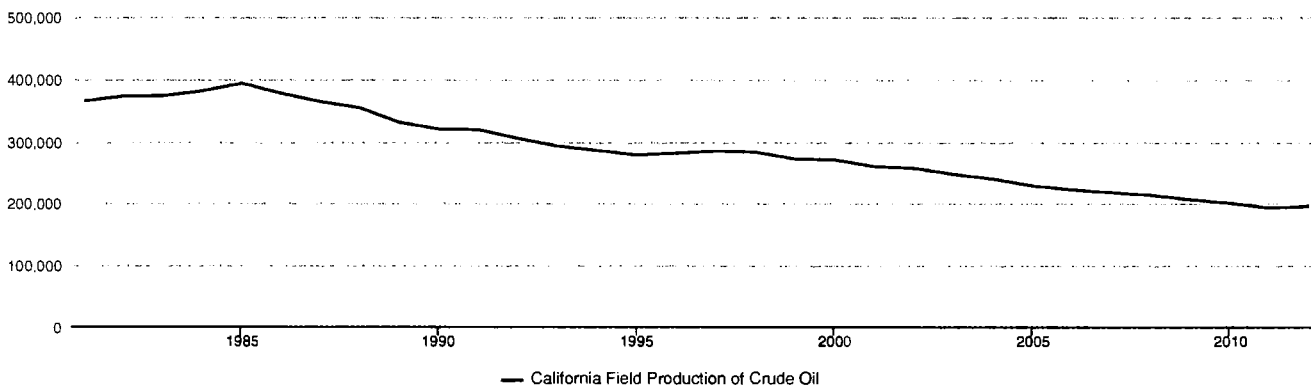
View History:  Monthly  Annual

Download Data (XLS File)

**California Field Production of Crude Oil**



Thousand Barrels



Source: U.S. Energy Information Administration

California Field Production of Crude Oil (Thousand Barrels)										
Decade	Year-0	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9
<b>1980's</b>		365,370	373,176	374,161	381,621	394,002	378,059	364,608	354,730	331,174
<b>1990's</b>	320,868	319,497	305,488	293,090	286,060	278,977	282,409	285,172	283,627	273,017
<b>2000's</b>	271,132	260,663	257,898	248,170	240,206	229,350	223,449	218,525	214,544	207,094
<b>2010's</b>	201,385	193,691	196,324							

-- No Data Reported; -- = Not Applicable; NA = Not Available; W = Withheld to avoid disclosure of individual company data.

Release Date: 3/15/2013  
Next Release Date: 9/27/2013

Referring Pages:  
■ Crude Oil Production



## **Attachment B**

### **Cap and Trade Program**

Reference

[www.arb.ca.gov/cc.capandtrade/guidance/chapter1.pdf](http://www.arb.ca.gov/cc.capandtrade/guidance/chapter1.pdf)

## CHAPTER 1: HOW DOES THE CAP-AND-TRADE PROGRAM WORK?

### 1.1 What is the Cap-and-Trade Program?

The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals. The statewide cap for GHG emissions from major sources, which is measured in metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>), will commence in 2013 and decline over time, achieving GHG emission reductions throughout the program's duration. Each covered entity will be required to surrender one permit to emit (the majority of which will be allowances, entities are also allowed to use a limited number of ARB offset credits) for each ton of GHG emissions they emit. Some covered entities will be allocated some allowances and will be able to buy additional allowances at auction, purchase allowances from others, or purchase offset credits.

### 1.2 What is the Mandatory Reporting of Greenhouse Gas Emissions Regulation?

The Cap-and-Trade Program relies on data collected through the Mandatory Reporting of Greenhouse Gas Emissions Regulation (MRR) to identify major sources of greenhouse gas emissions in California. The MRR was originally adopted in 2007 and was updated in 2011 to meet the needs of the Cap-and-Trade Program. The MRR requires facilities, fuel, and carbon dioxide (CO<sub>2</sub>) suppliers—as well as electric power entities—to report their annual GHG emissions in 2009 and every year thereafter. A detailed description of the reporting Regulation can be found in the Mandatory Reporting Guidance Document available at <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>.

### 1.3 What are the Basic Components of the Cap-and-Trade Program?

#### 1.3.1. What Is an Allowance?

An *allowance* is a tradable permit to emit one metric ton of a carbon dioxide equivalent greenhouse gas emission. The total number of allowances provided by ARB each year will be equivalent to the annual allowance budget specified in the Regulation. Each allowance will have a unique serial number.

#### 1.3.2. What Is an Offset Credit?

An *offset credit* is equivalent to a GHG reduction or GHG removal enhancement of one metric ton of CO<sub>2e</sub>. The GHG reduction or GHG removal enhancement must be real, additional, quantifiable, permanent, verifiable, and enforceable and may only be issued to offset projects using approved Compliance Offset Protocols. ARB offset credits, along with allowances, are frequently referred to as “compliance instruments” since they are used by entities to comply with the program. However, a covered entity may only meet up to 8 percent of its compliance obligation using ARB offset credits. More information on the requirements for offset credits, approved Compliance Offset Protocols, and offset projects can be found in Chapter 6.

### **1.3.3 What Is a Compliance Period?**

A *compliance period* is the time frame during which the compliance obligation is calculated. The years 2013 and 2014 are known as the “first compliance period,” and the years 2015–2017 are known as the “second compliance period.” The third compliance period is from 2018–2020. At the end of each compliance period each facility will be required to turn in compliance instruments, including allowances and a limited number of ARB offset credits, equivalent to their total GHG emissions throughout the compliance period.

### **1.4 Who Will Have to Comply with the Cap-and-Trade Program?**

Starting in 2012, major GHG-emitting sources, such as electricity generation (including imports), and large stationary sources (e.g., refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants) that emit more than 25,000 MTCO<sub>2</sub>e per year will have to comply with the Cap-and-Trade Program. The program expands in 2015 to include fuel distributors (natural gas and propane fuel providers and transportation fuel providers) to address emissions from transportation fuels, and from combustion of other fossil fuels not directly covered at large sources in the program’s initial phase. Additional information, including a preliminary list of the covered entities, can be found in Chapter 2 and at [http://www.arb.ca.gov/cc/capandtrade/covered\\_entities\\_list.pdf](http://www.arb.ca.gov/cc/capandtrade/covered_entities_list.pdf).

### **1.5 How Do I Determine if My Company Needs to Comply with Cap-and-Trade Program?**

Most facilities within the specified sectors mentioned above that emit GHGs will have to comply with the Cap-and-Trade Program and/or the Mandatory Reporting Regulation. Some facilities will be required to report their annual emissions but not have to surrender compliance instruments. This is determined by the type of energy or industrial sector and the facility’s annual GHG emissions. For example, most industries that emit 10,000 or greater metric tons of CO<sub>2</sub>e are required to report their GHGs whereas, the subset of industrial facilities with annual emissions equal to or greater than 25,000 metric tons of CO<sub>2</sub>e are required to comply with the Cap-and-Trade Program. To determine if your facility is subject to both or either regulation, please refer to the detailed description in Chapter 2.

#### **1.5.1 What Does My Company Have to Do in Order to Comply with the Cap-and-Trade Regulation?**

To comply with the Cap-and-Trade Regulation, each facility must register with ARB, report its annual GHG emissions, create the necessary accounts, designate an account authorized representative, and surrender compliance instruments by the established deadlines. Facilities are also required to retain their records for 10 years. A more detailed explanation of each of these requirements is located in Chapter 3.

**1.6 What Is a Compliance Obligation, and How Does My Company Determine How Many Allowances and ARB Offset Credits We Need to Surrender?**

A company's *compliance obligation* is equivalent to the quantity of allowances or a limited number of ARB offset credits a facility is required to surrender to ARB by a specified deadline in order to comply with the Cap-and-Trade Program. Each facility's compliance obligation will be determined by the quantity of reported and verified GHGs emissions. ARB will directly allocate a proportion of allowances to qualified facilities subject to the program. Each facility will be responsible for acquiring the remaining allowances or limited number of offset credits to comply with the program. Chapter 3 describes how to estimate the quantity of allowances your facility will be freely allocated. A discussion of how to acquire allowances and offset credits can be found in Chapter 5.

**1.7 What Are the Deadlines for Each Action Required by My Company?**

Table 1.1 summarizes the major compliance requirements for covered entities. Please refer to the subsequent chapters in this document and the Regulation for additional details.

Table 1.1. Main Compliance Deadlines for Covered Entities			
Event	Description	Regulation Location	Occurrence
<b>Reporting and Verification</b>			
<b>MRR reporting deadline for most entities</b>	Deadline to submit GHG reports to ARB using the online mandatory reporting tool. Applies to all stationary sources that are not electric power entities.	95103 (e)	April 10 of each year
<b>MRR reporting deadline for electric power entities</b>	Deadline to submit GHG reports to ARB using the online mandatory reporting tool. Applies to all electric power entities.	95103 (e)	June 1 of each year
<b>MRR verification deadline</b>	Deadline of verification statement to be received by ARB from verification body.	95103 (f)	September 1 of each year

<b>Deadline for Offset Verification Statements</b>	Deadline of offset verification statements to be received by ARB.	95977 (d)	Within nine months after the conclusion of the Reporting Period for which offset verification services were performed.
<b>Opt-in Covered Entities Reporting Deadline</b>	Deadline for opt-in covered entities to submit GHG reports to ARB using the online mandatory reporting tool.		<ul style="list-style-type: none"> <li>• In 2012, the recommended deadline was June 1, 2012.</li> <li>• For years 2013 and subsequent, the recommended deadline is April 10.</li> </ul>
<b>Program Registration</b>			
<b>Program registration deadline for covered entities</b>	Deadline to register for the Cap-and-Trade Program for covered entities	95830 (d)(1)(B)	January 31, 2012
<b>Registration deadlines for new entrants</b>	Deadline to register for the Cap-and-Trade Program for facilities that became covered entities	95830 (d)(1)(A)	Within 30 calendar days of the reporting deadline contained in the MRR if the entity is not a covered entity as of January 1, 2013.
<b>Request to Opt Into Program</b>	Opt-in covered entities must submit a request to opt into program by requesting a user ID through the Compliance Instrument Tracking System Service (CITSS).	95830 (d)(2)	<ul style="list-style-type: none"> <li>• In 2012, opt-in covered entities should make their request by November 30, 2012.</li> <li>• For 2013 and subsequent years, opt-in covered entities should make their request by March 1.</li> </ul>
<b>Allocation</b>			
<b>Allocation to utilities for the next calendar year</b>	Distribution of free allowances into utilities' holding account for the following calendar year emissions. For example, on July 15, 2012, allowances will	95870 (d)	September 14, 2012; November 1 of 2013 to 2019.

	be distributed for the 2013 calendar year.		
<b>Allocation to industry for the next calendar year</b>	Distribution of free allowances into industrial facilities' holding account for the following calendar year emissions. For example, on November 1, 2012, allowances will be distributed for the 2013 calendar year.	95870 (e)	November 1 of 2012 to 2019
<b>POU (Publicly Owned Utility) Compliance/Holding Accounts</b>	POUs must inform ARB of the share of their allowances that should be placed in compliance versus holding accounts	95892 (b)(2)	September 1 of 2012 to 2019
<b>Auction</b>			
<b>Auction Registration</b>	Registration deadline for Auctions	95912 (c)(2)	Registration deadline for an auction occurs 30 days prior to the auction.
<b>Auction</b>	Auction of compliance allowances	95910 (a)	In 2012, single auction on November 14. Starting 2013, four auctions will occur each year on the twelfth business day, or first business day thereafter, of the second month of each quarter. For example, 2013 auctions will be held February 19, May 16, August 16, and November 19.

<b>Deadline for allowances to be consigned to auction</b>	Electric utilities can consign allowances to be sold in the auctions. These allowances must be consigned ahead of time.	95910 (d)(4)	The deadline to consign allowances to the auction occurs 10 days prior to the auction in 2012, and 75 days prior to the auction in 2013 and thereafter.
<b>Sale of Reserve Allowances</b>			
<b>Sale of Allowances from the Allowance Price Containment Reserve</b>	In addition to the auction, allowances are sold from the allowance price containment reserve at three reserve price tiers, starting at \$40, \$45, and \$50 per allowance in 2013. Only covered entities and opt-in covered entities may participate in this sale.	95913 (c)(3)	Sale of allowances through the allowance price containment reserve occurs 6 weeks after the standard allowance auction. Bids must be submitted 2 weeks prior to sale of allowances.
<b>Surrender</b>			
<b>Compliance Instrument Surrender Deadline; (A) — Annual Surrender, (T) — Triennial Surrender</b>	Allowances must be surrendered annually to ARB in the amount according to a facility's compliance obligation, determined by the facility's emissions. The annual compliance obligation is 30 percent of the reported emissions of the previous year. The triennial compliance obligation is the sum of the reported emissions during a compliance obligation minus the instruments surrendered as part of the annual compliance obligation.	95856 (d)	Annual surrender of compliance instruments occurs on Nov. 1 of the calendar year following a year of reported emissions. For example the surrender of instruments for 2013 will occur Nov. 1, 2014. Triennial surrender occurs the calendar year following the end of a compliance period. Compliance periods are 2013–2014, 2015–2017, and 2018–2020. Thus, triennial surrender will occur Nov, 1 of 2015, 2018, and 2021.

**1.8 What Happens if My Company Cannot Meet a Deadline?**

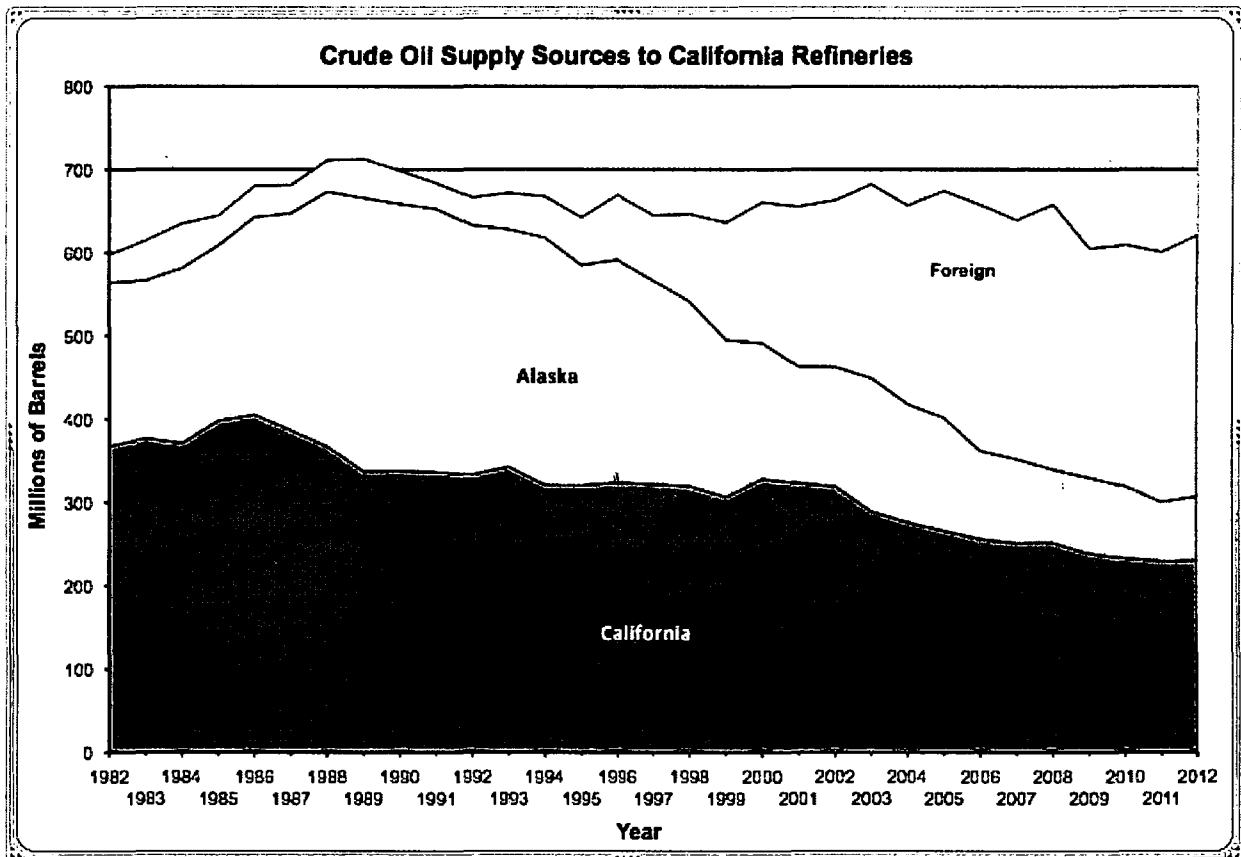
Facilities that do not adhere to the Cap-and-Trade Program requirements will be subject to stringent penalties. The Health and Safety Code allows ARB to determine the appropriate enforcement mechanism based on the specific circumstances for a rule violation.

**1.9 How Do I Create an Offset Project?**

There are stringent requirements for developing offset projects that may generate ARB offset credits used for compliance. Currently, there are four Compliance Offset Protocols that are approved and may be used to develop offset projects under the Cap-and-Trade Program. They are urban forestry, forestry, livestock digesters, and destruction of ozone-depleting substances.

We strongly recommend that each party interested in developing an offset project review the qualification criteria outlined in Chapter 6 of this document and speak with ARB or an approved Offset Project Registry.





[http://energyalmanac.ca.gov/petroleum/statistics/crude\\_oil\\_receipts.html](http://energyalmanac.ca.gov/petroleum/statistics/crude_oil_receipts.html)



**Jason H. Donchin**  
Manager – Health,  
Environment, and Safety

**San Joaquin Valley BU**  
Chevron North America  
Exploration and Production  
P.O. Box 1392  
Bakersfield, CA 93302

RECEIVED

AUG 22 2013

SJVAPCD  
Southern Region

August 22, 2013

Mr. Leonard Scandura  
San Joaquin Valley APCD  
34946 Flyover Court  
Bakersfield, CA 93308

**RE: Response to Request for Additional Information Banking Application Project <sup>S</sup> 1120775 SD/A**

Dear Mr. Scandura:

This letter is in response to the District's request for additional information dated May 20, 2013 for the above referenced project to bank greenhouse gas emissions from the shutdown of four gas turbine engines (GTEs) located at the A and C Fee leases.

Chevron U.S.A. Inc. (CUSA) does not believe that District Rules 2201 and 2301 require permanence be demonstrated beyond the boundaries of the emission unit. The qualification for banking from the shutdown of each turbine was demonstrated with the original submission and in CUSA's letter of June 12, 2012. A copy of the June 12, 2012 letter is included as Attachment 1.

However, in order to move forward with this application CUSA is providing the following to responses to your letter of May 20, 2013.

The Chevron's response to the information requested is as follows:

1. Specify the geographical boundary:

The geographical location of two GTEs was the A Fee lease in the Kern River Oilfield and the C Fee lease in the Kern River oilfield. The Kern River oilfield is located northeast of Bakersfield in Kern County. A map is attached showing the location and of the A Fee and C Fee leases is included as Attachment 2.

2. Provide and explanation of how the emission reduction is not shifted to other equipment or processes.

CUSA operated the GTEs at the A Fee and C Fee leases. The banking project proposed to bank credits for the two A Fee GTEs during common baseline period most representative of normal operation and for the two C Fee GTEs during a slightly different period most representative of their operation. The permits for all four GTEs have been surrendered and the GTEs have been removed. CUSA does not hold any permits for GTEs on the A Fee or C Fee leases. Any new equipment necessary to generate steam will be subject to NSR and PSD programs.

In addition historical data shows that there was no increase in fuel use from the steam equipment in the stationary source due to the Fee A and Fee C reduction in steam. This information is included as Attachment 3.

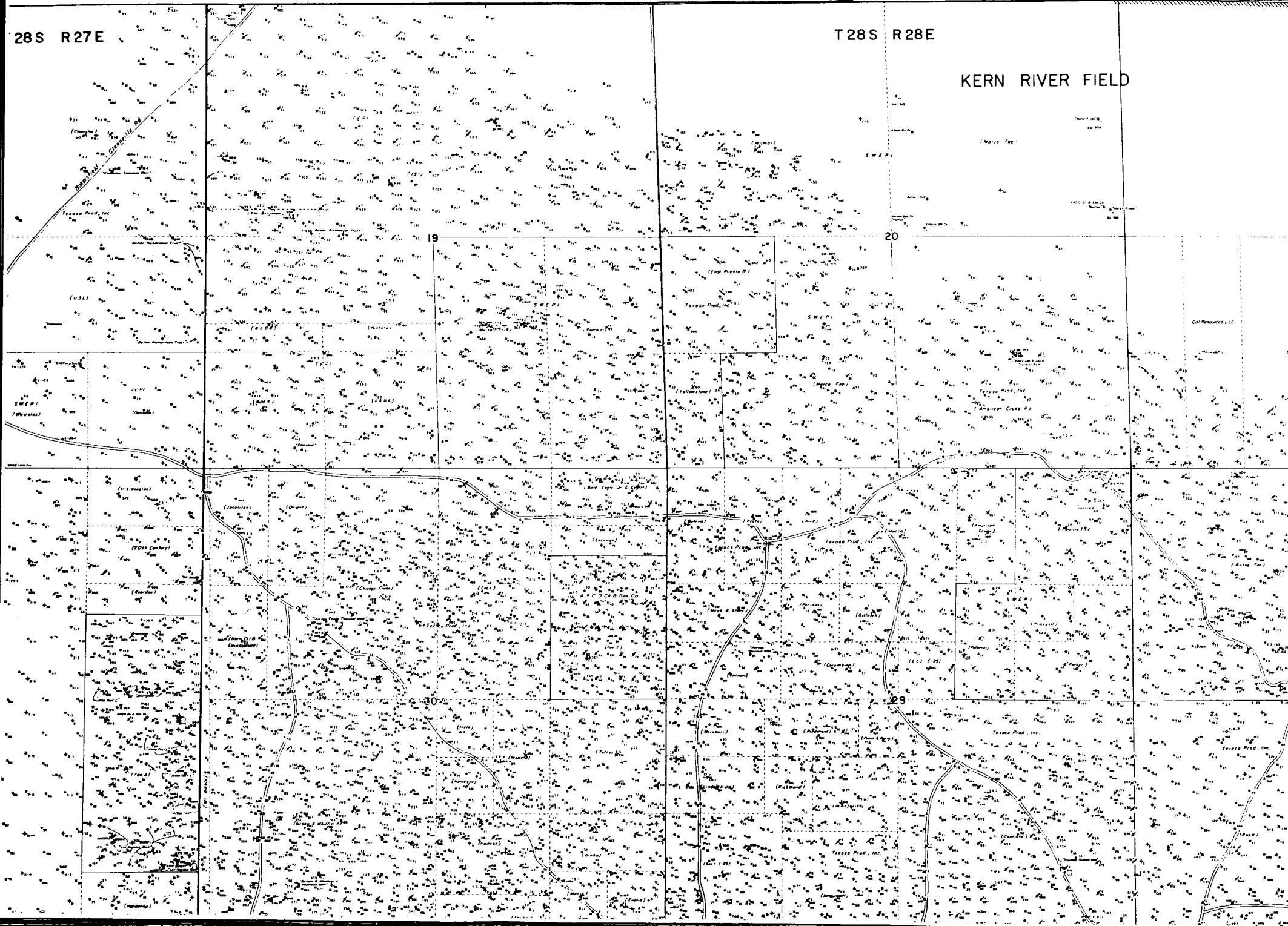
Project C-1120775  
August 22, 2013

## **Attachment 1**

28S R27E

T28S R28E

KERN RIVER FIELD



## **Attachment 2**



Jason H. Donchin  
Manager - Health,  
Environment, and Safety

RECEIVED  
JUN 13 2012  
San Joaquin Valley BU  
Chevron North America  
Exploration and Production  
P.O. Box 1392  
Bakersfield, CA 93302  
SJVAPCD  
Southern Region

June 12, 2012

Mr. Leonard Scandura  
San Joaquin Valley APCD  
34946 Flyover Court  
Bakersfield, CA 93308

**RE: Response to Notice of Incomplete CO2E Banking Applications Projects S-1120775 and S-1120776 and Comments on Project S-1111565**

Dear Mr. Scandura:

This letter is in response to the District Notices of Incomplete Applications dated April 19, 2012 for the above referenced projects.

The additional information requested asks Chevron U.S.A. Inc. (CUSA) to quantify CO2E increases that may occur elsewhere as a result of the reduction in combustion emission from the shutdown of specific emissions units. CUSA does not believe that the requested information is necessary to bank these CO2E emission reductions for the following reasons:

1. The CO2E reductions meet the requirements of real, enforceable, quantifiable, surplus and permanent as required for greenhouse banking under Rule 2301 for the emissions units units.
2. Rule 2301 does not govern the use of emission reduction credits. Limitations or adjustments to greenhouse gases emissions need not be imposed at the time of banking. Qualification for use can only be determined under the program that uses the credits.
3. Emissions increases of CO2E that may occur elsewhere are adequately addressed by other regulatory requirements.

Supporting information for each response is attached.

After you have reviewed our response we would be pleased to meet with you to discuss how we may best proceed with the proposed projects.

If you have any questions or require additional information, please telephone John Gruber at (661) 654-7144, or Lance Ericksen at (661) 654-7145.

Sincerely,

  
Jason H. Donchin  
Manager - Health, Environment and Safety

CC: Steve Davidson, David Torii, Steve Roeder

Attachment

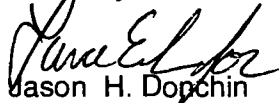
Response to Notice of Incomplete Banking Applications  
Project C-1120775  
August 22, 2013

Based on the above information and information previously submitted CUSA believes the District the may establish the State of California as their geographical boundary.

After you have reviewed our response we would be pleased to meet with you to discuss any questions you may have.

Please telephone Lance Ericksen at (661) 654-7145 if you require additional clarification.

Sincerely,



Jason H. Dopchin

Manager – Health, Environment and Safety

Attachments

Response to Notice of Incomplete Banking Applications  
Projects C-1120775 and S-1120776  
June 12, 2012

Information requested:

**Project S-1120775 – Bank CO2E from the shutdown of four gas turbine engines**

Please provide documentation that the emissions from electrical and thermal energy produced by the turbines are permanent, i.e. electrical and thermal energy is not being replaced by any new or existing equipment.

**Project S-1120776 – Bank CO2E from the shutdown of three IC engines**

Please submit information needed to calculate CO2E emissions from the power plant that supplies power to the electric motors that now power the compressors.

**CUSA Response 1**

The CO2E reductions meet the requirements of real, enforceable, quantifiable, surplus and permanent as required for greenhouse banking under Rule 2301 for the emissions units.

Section 3.8 of Rule 2301 defines Emission Reduction Credits (ERCs) as: reduction of actual emissions of affected pollutants or greenhouse gas emission from emissions unit recognized by the District as available for use as tradeoffs, offsets, CEQA mitigation or other purposes, in accordance with the requirements of this rule. To be eligible for certification as ERCs, emissions reductions must be real, surplus, permanent, quantifiable and enforceable. All emission reductions meeting these requirements may be certified as ERCs.

Section 3.1 of Rule 2301 defines Actual Emission Reduction: as defined in Rule 2201

Rule 2201 section 3.2 defines Actual Emission Reduction (AER) as the decrease of actual emission, compared to the Baseline Period, from an emissions unit and selected for use as emission offsets or ERC banking.

Rule 2201 section 3.1 defines Actual Emissions: emissions having occurred from a source, based on source test or monitoring data, actual fuel consumption, and process data. Used in this context source refers to the source operation (Rule 1020 3.46) i.e. the emissions unit (Rule 2201 3.17). Elsewhere source may refer to the Stationary Source (Rule 2201 3.39) all equipment owned by a company at a specific location. It would appear the rule does not extend beyond company specific equipment.

Section 4.5.4 of Rule 2301 states: Greenhouse gas emission reductions are calculated as the difference between the historic annual average greenhouse gas emissions (as CO2E) calculated using the consecutive 24 month period immediately prior to the date of the emission reduction occurred, or another 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as more representative of normal operations, and the potential greenhouse gas emissions (as CO2E) after the project is complete..

Information supplied with the banking applications including actual fuel consumption for each gas turbine and each IC engine quantified the actual emissions of CO2E from each emissions unit. The permits for the gas turbines and engines have been surrendered and the equipment has been removed or is in the process of being removed. The emissions units (the identifiable operation that emit CO2E) no longer have any potential greenhouse gas emissions therefore, for the emissions units, the reduction in actual CO2E emissions as quantified by Rule 2301 Section 4.5.4 meet the qualifications for banking under Rule 2301 and can be banked as presented in the application.



## **CUSA Response 2**

Rule 2301 does not govern the use of emission reduction credits. Limitations or adjustments to greenhouse gas emissions need not be imposed at the time of banking. Qualification for use can only be determined under the program that uses the credits.

Section 1.2.1 of Rule 2301 for greenhouse gases states the purpose is to "Provide an administrative mechanism for sources to bank voluntary greenhouse gas emission reductions for later use".

Rule 2301 Section 7.5 states that the rule does not define or mandate any uses of banked greenhouse gas emission reductions.

Based on the above references Rule 2301 is administrative and does not govern the use of greenhouse gas emission reductions. The rule presumes other regulations are or will be developed to address the use of banked greenhouse gas credits. To discount a portion of the reductions based on assumed increases elsewhere by equipment that may or may not be under control of Chevron's control goes beyond the administrative scope of the banking rule. At the time banked CO<sub>2</sub>e credits are proposed for use the amount of available credits would need to be determined under the applicable program. It is premature, and inconsistent with Rule 2301, to attempt to make this determination at the time of banking.

## **CUSA Response 3**

Emissions increases of CO<sub>2</sub>e that may occur elsewhere are adequately addressed by other regulatory requirements.

On October 20, 2011 the California Air Resources Board approved the Cap-and-Trade regulation for greenhouse gases. The regulation sets a declining cap on allowed emissions while employing market mechanisms to achieve emission reductions. An overall 2020 targeted limit of 334.2 million metric tons (MMT) of carbon dioxide equivalent (CO<sub>2</sub>e) on GHG emissions from most of the California economy – the "capped sectors" – is established by the cap-and-trade program. In the cap-and-trade program, a limit, or cap is put on the amount of pollutants (i.e., GHGs) that can be emitted. The cap is implemented by creating allowances in a number equal to the cumulative emissions from all the covered sectors. Each allowance provides a limited authorization to emit one metric ton (MT) of CO<sub>2</sub>e. These allowances may be auctioned, distributed for free, or allocated by some combination thereof. Sources in the capped sectors must report their emissions and must surrender allowances to match those emissions in accordance with the schedule in the regulation to achieve the 2020 cap.

Capped sectors include oil, gas production and electrical generation and most other large industrial operations. Any increases in greenhouse gas emissions that would occur elsewhere as a result of the shutdown of the emissions units in these projects must be accommodated under the Cap-and-Trade regulation to achieve the overall 2020 cap. It is therefore, not necessary to quantify increases in greenhouse gas emissions that may occur elsewhere due to the shutdown of these emissions units. The Cap-and-Trade regulation provides an adequate mechanism to address any potential increase.

## **Summary**

The information supplied with the banking applications for these projects is sufficient to demonstrate that the greenhouse gas emission reductions are real, surplus, permanent, quantifiable and enforceable actual emission reductions for the emissions units. Imposing limits on greenhouse reductions based on subjective assumptions about increases elsewhere is not required by Rule 2301, and can only be determined by programs that use greenhouse gas credits. In any case emission increases in greenhouse gases are adequately addressed by the California Cap-and-Trade regulation. Increases that might occur must be accommodated under Cap-and-Trade to achieve the fixed 2020 cap.

## **Attachment 3**

**Attachment 2: Historical NOx Emissions and Fuel Use from steam generators/turbines at S-1127 and S-1131**

NOx	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
<u>Facility</u>							
S-1127	30.75	30.34	26.25	28.77	24.48	23.49	23.35
S-1131	110.34	<b>143.45</b>	146.63	135.26	64.12	49.76	16.78
Total	141.09	173.79	172.88	164.03	88.60	73.25	40.13

Fuel [mmcf]	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
<u>Facility</u>							
S-1127	5237.11	5015.33	3871.22	3911.45	3681.65	3684.86	3540.13
S-1131	4232.48	<b>6496.02</b>	6447.84	6400.62	3854.54	4265.13	3225.11
Total	9469.59	11511.35	10319.06	10312.07	7536.19	7949.99	6765.24



MAY 20 2013

Jason H. Donchin  
Chevron USA  
P O Box 1392  
Bakersfield, CA 93302

**RE: Application for greenhouse gas Emission Reduction Credits**  
**Project Number: S-1120775**

Dear Mr. Donchin:

On June 13, 2012, the District received your Emission Reduction Credit application to bank greenhouse gas emission (GHG) emission reductions that occurred as a result of CO<sub>2</sub>e emission reduction credits associated with the shutdown of four gas turbine engines at the A Fee and C fee leases. We have determined that the following information is necessary to allow us to continue to process your application:

1. Please, specify the geographic boundary in which the GHG emission reduction project is permanent.
2. Provide an explanation/justification of how the GHG emission reduction is permanent (i.e. not shifted to other equipment or processes) within the boundary of the emission reduction project.

Please submit the requested information within 90 days. Thank you for your cooperation in this matter. Should you have any questions, please telephone Steve Davidson at (661) 392-5618.

Sincerely,

David Warner  
Director of Permit Services



Leonard Scandura, P.E.  
Permit Services Manager  
DW:sdd

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

RECEIVED

JUN 13 2012



Jason H. Donchin  
Manager – Health,  
Environment, and Safety

San Joaquin Valley Southern Region  
SJVAPCD  
Chevron North America  
Exploration and Production  
P.O. Box 1392  
Bakersfield, CA 93302

June 12, 2012

Mr. Leonard Scandura  
San Joaquin Valley APCD  
34946 Flyover Court  
Bakersfield, CA 93308

**RE: Response to Notice of Incomplete CO2E Banking Applications Projects S-1120775 and S-1120776 and Comments on Project S-1111565**

Dear Mr. Scandura:

This letter is in response to the District Notices of Incomplete Applications dated April 19, 2012 for the above referenced projects.

The additional information requested asks Chevron U.S.A. Inc. (CUSA) to quantify CO2E increases that may occur elsewhere as a result of the reduction in combustion emission from the shutdown of specific emissions units. CUSA does not believe that the requested information is necessary to bank these CO2E emission reductions for the following reasons:

1. The CO2E reductions meet the requirements of real, enforceable, quantifiable, surplus and permanent as required for greenhouse banking under Rule 2301 for the emissions units.
2. Rule 2301 does not govern the use of emission reduction credits. Limitations or adjustments to greenhouse gases emissions need not be imposed at the time of banking. Qualification for use can only be determined under the program that uses the credits.
3. Emissions increases of CO2E that may occur elsewhere are adequately addressed by other regulatory requirements.

Supporting information for each response is attached.

After you have reviewed our response we would be pleased to meet with you to discuss how we may best proceed with the proposed projects.

If you have any questions or require additional information, please telephone John Gruber at (661) 654-7144, or Lance Ericksen at (661) 654-7145.

Sincerely,

  
Jason H. Donchin  
Manager – Health, Environment and Safety

CC: Steve Davidson, David Torii, Steve Roeder

Attachment

Information requested:

**Project S-1120775 – Bank CO2E from the shutdown of four gas turbine engines**

Please provide documentation that the emissions from electrical and thermal energy produced by the turbines are permanent, i.e. electrical and thermal energy is not being replaced by any new or existing equipment.

**Project S-1120776 – Bank CO2E from the shutdown of three IC engines**

Please submit information needed to calculate CO2E emissions from the power plant that supplies power to the electric motors that now power the compressors.

**CUSA Response 1**

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Section 3.8 of Rule 2301 defines Emission Reduction Credits (ERCs) as: reduction of actual emissions of affected pollutants or greenhouse gas emission from **emissions unit** recognized by the District as available for use as tradeoffs, offsets, CEQA mitigation or other purposes, in accordance with the requirements of this rule. To be eligible for certification as ERCs, emissions reductions must be real, surplus, permanent, quantifiable and enforceable. All emission reductions meeting these requirements may be certified as ERCs.

Section 3.1 of Rule 2301 defines Actual Emission Reduction: as defined in Rule 2201

Rule 2201 section 3.2 defines Actual Emission Reduction (AER) as the decrease of actual emission, compared to the Baseline Period, from an **emissions unit** and selected for use as emission offsets or ERC banking.

Rule 2201 section 3.1 defines Actual Emissions: emissions having occurred from a source, based on source test or monitoring data, actual fuel consumption, and process data. Used in this context source refers to the source operation (Rule 1020 3.46) i.e. the emissions unit (Rule 2201 3.17). Elsewhere source may refer to the Stationary Source (Rule 2201 3.39) all equipment owned by a company at a specific location. It would appear the rule does not extend beyond company specific equipment.

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Information supplied with the banking applications including actual fuel consumption for each gas turbine and each IC engine quantified the actual emissions of CO2E from each emissions unit. The permits for the gas turbines and engines have been surrendered and the equipment has been removed or is in the process of being removed. The **emissions units** (the identifiable operation that emit CO2E) no longer have any potential greenhouse gas emissions therefore, for the **emissions units**, the reduction in actual CO2E emissions as quantified by Rule 2301 Section 4.5.4 meet the qualifications for banking under Rule 2301 and can be banked as presented in the application.

## **CUSA Response 2**

Rule 2301 does not govern the use of emission reduction credits. Limitations or adjustments to greenhouse gas emissions need not be imposed at the time of banking. Qualification for use can only be determined under the program that uses the credits.

Section 1.2.1 of Rule 2301 for greenhouse gasses states the purpose is to "Provide an administrative mechanism for sources to bank voluntary greenhouse gas emission reductions for later use".

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Based on the above references Rule 2301 is administrative and does not govern the use of greenhouse gas emission reductions. The rule presumes other regulations are or will be developed to address the use of banked greenhouse gas credits. To discount a portion of the reductions based on assumed increases elsewhere by equipment that may or may not be under control of Chevron's control goes beyond the administrative scope of the banking rule. At the time banked CO<sub>2</sub>E credits are proposed for use the amount of available credits would need to be determined under the applicable program. It is premature, and inconsistent with Rule 2301, to attempt to make this determination at the time of banking.

## **CUSA Response 3**

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Capped sectors include oil, gas production and electrical generation and most other large industrial operations. Any increases in greenhouse gas emissions that would occur elsewhere as a result of the shutdown of the emissions units in these projects must be accommodated under the Cap-and-Trade regulation to achieve the overall 2020 cap. It is therefore, not necessary to quantify increases in greenhouse gas emissions that may occur elsewhere due to the shutdown of these emissions units. The Cap-and-Trade regulation provides an adequate mechanism to address any potential increase.

## **Summary**

The information supplied with the banking applications for these projects is sufficient to demonstrate that the greenhouse gas emission reductions are real, surplus, permanent, quantifiable and enforceable actual emission reductions for the emissions units. Imposing limits on greenhouse reductions based on subjective assumptions about increases elsewhere is not required by Rule 2301, and can only be determined by programs that use greenhouse gas credits. In any case emission increases in greenhouse gases are adequately addressed by the California Cap-and-Trade regulation. Increases that might occur must be accommodated under Cap-and-Trade to achieve the fixed 2020 cap.



APR 19 2012

Jason H. Donchin  
P O Box 1392  
Bakersfield, CA 93302

**Re: Notice of Incomplete Application**  
**Project Number: S-1120775**

Dear Mr. Donchin:

The District has received your Permit To Operate application for CO<sub>2</sub>e emission reduction credits associated with the shutdown of four gas turbine engines, at the A Fee and C fee leases. Based on our preliminary review, the application has been determined to be incomplete. The following information is required prior to further processing:

1. Please provide documentation that the emissions from the electrical and thermal energy produced by the turbines are permanent, i.e. electrical and thermal energy is not being replaced by any new or existing equipment.

In response, please refer to the above project number, and send to the attention of Mr. Steve Davidson.

Please submit the requested information within 30 days. The District will not be able to process your application until this information is received.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Steve Davidson at (661) 392-5618.

Sincerely,

David Warner  
Director of Permit Services



Leonard Scandura, P.E.  
Permit Services Manager  
DW:sdd





**Jason H. Donchin**  
Manager – Health, Environment,  
and Safety

**San Joaquin Valley SBU**  
Chevron North America  
Exploration and Production  
P.O. Box 1392  
Bakersfield, CA 93302

March 12, 2012

Leonard Scandura  
San Joaquin Valley APCD  
34946 Flyover Court  
Bakersfield, California 93308

**RECEIVED**

**MAR 14 2012**

**SJVAPCD  
Southern Region**

**RE: Application for CO2E Emission Reduction Credit Banking Certificate**

Dear Mr. Scandura:

Chevron U.S.A. Inc. (CUSA) shutdown the Kern River A Fee and C Fee gas turbines (Permits S-1131-970, -973, -974 and -1079) in June of 2010. Pursuant to District Rule 2301 – Emission Reduction Credit Banking as amended January 19, 2012 CUSA is submitting this application for CO2E Banking Certificates. Additional details are included with the attached proposal, which is available in electronic format upon request. Enclosed please find the necessary application form and a \$759.00 check for application filing fee.

If you have any questions, please contact John Gruber at phone number (661) 654-7144, or Mr. Lance Ericksen, our HES Business Partner, at phone number (661) 654-7145.

Sincerely,

A handwritten signature in black ink that reads "John Gruber for Jason Donchin". The signature is written in a cursive style.

Jason H. Donchin  
Health, Environment and Safety Manager

JG/LE  
Attachments

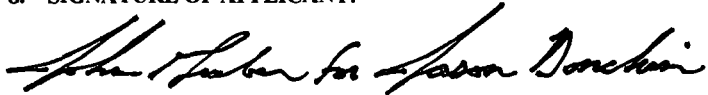
San Joaquin Valley Air Pollution Control District MAR 14 2012

Application for

SJVAPCD  
Southern Region

EMISSION REDUCTION CREDIT (ERC)

CONSOLIDATION OF ERC CERTIFICATES

1. ERC TO BE ISSUED TO: <b>Chevron U.S.A. Inc.</b>		Facility ID: S-1131 (if known)				
2. MAILING ADDRESS: Street/P.O. Box: <b>P.O. Box 1392</b>						
City: <b>Bakersfield</b>		State: <b>CA</b> Zip Code: <b>93302</b>				
3. LOCATION OF REDUCTION: Street: <b>A Fee and C Fee</b> City: <b>Kern River Oilfield</b>		4. DATE OF REDUCTION: <b>June 2010</b>				
SECTION <b>25/30</b> TOWNSHIP <b>28S</b> RANGE <b>27E</b>						
5. PERMIT NO(S): <b>S-1131-970, '973, '974, '1079</b>		EXISTING ERC NO(S):				
6. METHOD RESULTING IN EMISSION REDUCTION:  <input checked="" type="checkbox"/> SHUTDOWN <input type="checkbox"/> RETROFIT <input type="checkbox"/> PROCESS CHANGE <input type="checkbox"/> OTHER  DESCRIPTION: <b>Shutdown of A Fee and C Fee Gas Turbines</b>  (Use additional sheets if necessary)						
7. REQUESTED ERCs: (In pounds per calendar quarter except CO <sub>2</sub> e)						
	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	SO <sub>x</sub>	Other
1 <sup>st</sup> Qtr						
2 <sup>nd</sup> Qtr						
3 <sup>rd</sup> Qtr						
4 <sup>th</sup> Qtr						
CO <sub>2</sub> e <span style="border: 1px solid black; padding: 2px;">73,751</span> metric ton/yr						
8. SIGNATURE OF APPLICANT: 		TYPE OR PRINT TITLE OF APPLICANT: <b>Manager Health Environment, and Safety</b>				
9. TYPE OR PRINT NAME OF APPLICANT: <b>Jason H. Donchin</b>				DATE: <b>3-12-2012</b>	TELEPHONE NO:	

FOR APCD USE ONLY:

*CHEVRON*

DATE STAMP	FILING FEE RECEIVED: \$ <u>759</u>	# <u>24071228</u>
	DATE PAID: <u>pm 3/12/12</u>	
	PROJECT NO.: <u>S-1120775</u>	FACILITY ID.: <u>S-1131</u>

*Initial ERC App*

#### **IV. Method of Generating Reduction:**

The natural gas fueled turbines have been shutdown and the permits surrendered.

#### **V. ERC Calculations:**

Greenhouse Gas Emission reductions are banked in accordance with Section 4.5 of Rule 2301. Section 4.5.3 requires the greenhouse gas emission reductions be real, surplus, permanent, quantifiable and enforceable.

##### **A. Assumptions and Emission Factors**

Emission reductions of CO2E have been calculated using measured and recorded heat input values for the turbines. Fuel use is tabulated and presented in Appendix A.

Emissions factors from the California Air Resources Board Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, Appendix A, are used to quantify CO2E. The emissions factors are as shown below:

Carbon Dioxide - Natural Gas Combustion - 53.02 Kg CO<sub>2</sub>/MMBtu  
Methane – Natural Gas Combustion - 0.9 g CH<sub>4</sub>/MMBtu, *0.0009 Kg CH<sub>4</sub>/MMBtu*  
Nitrous Oxide – Natural Gas Combustion – 0.1 g N<sub>2</sub>O/MMBtu. *0.0001 Kg N<sub>2</sub>O/MMBtu*

Rule 2301 Table 1 Conversion factors are used to convert Methane and Nitrous Oxide emissions to CO2E. The conversion factors are as shown below:

Carbon Dioxide 1 Metric Ton CO2E per CO<sub>2</sub> Metric Ton  
Methane 21 Metric Ton CO2E per CH<sub>4</sub> Metric Ton  
Nitrous Oxide 310 Metric Ton CO2E per N<sub>2</sub>O Metric Ton

##### **B. Historic Annual Average Period Determination**

The emission reductions occurred at the end of June 2010 the last month in which the A Fee and C Fee turbines operated. CUSA requests the 24-month period used to determine historic annual average emissions be the 24 months more representative of normal operation for the turbines at each location within the 60 months prior to the date the emission reduction occurred. To determine the period representative of more normal operation, operating records were reviewed for the period January 1999 through June 2010. The annual average heat input for the turbines at each location was determined for the 11.5-year period and compared to the two-year annual average operation on a month-by-month basis for the turbines at each location. The period with the smallest difference within the 60 months preceding, the date the reduction occurred compared with normal operation was selected as the 24-month period used to determine historic annual average emissions. Details of the source operations and historic annual 24- month period are included in Appendix A.

### C. Greenhouse Gas Emission Reductions

Section 4.5.4 of Rule 2301 states that greenhouse gas emission reductions are calculated as the difference between the historic annual average greenhouse gas emissions (as CO2E) and the potential greenhouse gas emission (as CO2E) after the project is complete.

Because the greenhouse gas emission reductions are the result of discontinuing the operation of the turbines, the potential greenhouse gas emissions after the project is completed are zero. The greenhouse gas emission reductions therefore equal the historic annual average greenhouse gas emissions (as CO2E).

Annual average greenhouse gas emissions are calculated using the following formula:

$$\text{Annual Average GHG Emissions} = \frac{\text{Ef Kg}}{\text{MMBtu}} \times \frac{\text{MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}}$$

Annual average greenhouse gas emissions are converted to CO2E using the conversions factors in Rule 2301 Table 1 as shown in section V.A. using the following formula:

$$\text{Annual CO2E Emissions} = \text{Annual Average GHG Emissions} \times \text{Conversion Factor}$$

From Appendix A:

A Fee 1,466,858 MMBtu during 24 Months August 2006 to July 2008

C Fee 1,312,536 MMBtu during 24 Months May 2006 to April 2008

#### A Fee Annual Average GHG Emissions:

$$\begin{aligned} \text{Carbon Dioxide} &= \frac{53.02 \text{ Kg}}{\text{MMBtu}} \times \frac{1,466,858 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}} \\ &= 38,886 \text{ metric tons Carbon Dioxide/year} \end{aligned}$$

$$\begin{aligned} \text{Methane} &= \frac{.0009 \text{ Kg}}{\text{MMBtu}} \times \frac{1,466,858 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}} \\ &= 0.66 \text{ metric tons Methane/year} \end{aligned}$$

$$\begin{aligned} \text{Nitrous Oxide} &= \frac{.0001 \text{ Kg}}{\text{MMBtu}} \times \frac{1,466,858 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}} \\ &= 0.07 \text{ metric tons Nitrous Oxide/year} \end{aligned}$$

C Fee Annual Average GHG Emissions:

$$\text{Carbon Dioxide} = \frac{53.02 \text{ Kg}}{\text{MMBtu}} \times \frac{1,312,536 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}}$$

$$= 34,795 \text{ metric tons Carbon Dioxide/year}$$

$$\text{Methane} = \frac{.0009 \text{ Kg}}{\text{MMBtu}} \times \frac{1,312,536 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}}$$

$$= 0.59 \text{ metric tons Methane/year}$$

$$\text{Nitrous Oxide} = \frac{.0001 \text{ Kg}}{\text{MMBtu}} \times \frac{1,312,536 \text{ MMBtu}}{24 \text{ months}} \times \frac{24 \text{ months}}{2 \text{ years}} \times \frac{1 \text{ metric ton}}{1000 \text{ Kg}}$$

$$= 0.07 \text{ metric tons Nitrous Oxide/year}$$

A Fee Annual Average CO2E:

$$\text{Annual CO2E Emisions Carbon Dioxide} = 38,886 \text{ metric tons} \times 1$$

$$= 38,886 \text{ metric tons CO2E/year}$$

$$\text{Annual CO2E Emisions Methane} = 0.66 \text{ metric tons} \times 21$$

$$= 14 \text{ metric tons CO2E/year}$$

$$\text{Annual CO2E Emisions Nitrous Oxide} = 0.07 \text{ metric tons} \times 310$$

$$= 22 \text{ metric tons CO2E/year}$$

$$\text{Total A Fee CO2E} = 38,886 + 14 + 22 = \underline{38,922 \text{ metric tons/year}}$$

C Fee Annual Average CO2E:

$$\text{Annual CO2E Emisions Carbon Dioxide} = 34,795 \text{ metric tons} \times 1$$

$$= 34,795 \text{ metric tons CO2E/year}$$

$$\text{Annual CO2E Emisions Methane} = 0.59 \text{ metric tons} \times 21$$

$$= 12 \text{ metric tons CO2E/year}$$

*Annual CO2E Emissions Nitrous Oxide = 0.07 metric tons x 310*

*= 22 metric tons CO2E/year*

*Total A Fee CO2E = 34,795 + 12 + 22 = 34,829 metric tons/year*

### **Total Greenhouse Gas Emission Reductions As CO2E**

Total CO2E Emission Reductions = 38,922 + 34,829 metric tons/year

**= 73,751 metric tons/year**

#### **VI. Compliance:**

##### **A. Real**

Emission reductions have been calculated based on actual heat input to the turbines and recognized emission factors and conversion factors. Therefore, the reductions are real.

##### **B. Enforceable**

The turbines have been removed from service and the permits have been surrendered. Therefore, the requested ERCs are enforceable.

##### **C. Quantifiable**

Emission reductions have been calculated based on actual heat input to the turbines and recognized emission factors and conversion factors. Therefore, the reductions are quantifiable.

##### **D. Permanent**

The turbines have been removed from service and the permits have been surrendered. Therefore, the requested ERCs are permanent.

##### **E. Surplus**

Rule 2301 Section 4.5.3.1 states:

Greenhouse gas emission reductions that occur at a facility subject to the CARB greenhouse cap and trade regulation on or after January 1, 2012 are not surplus.

These reductions occurred prior to January 1, 2012.

Rule 2301 Section 4.5.3.2 states:

Greenhouse gas emission reductions that occur as a result of law, rule, or regulation that required the greenhouse gas emission reduction are not surplus.

These reductions are not required by any law, rule or regulation that required the greenhouse gas emission reduction.

Therefore, the greenhouse gas emissions requested for ERC banking are surplus.

**F. Was application timely?**

The turbines ceased operation at the end of June 2010. Pursuant to Rule 2301 section 5.5.2 for reductions covered under section 4.5.1 (greenhouse gas reductions that occurred on or after January 1, 2005) applications shall be filed by July 19, 2012. This application was filed in a timely manner.

#### **VII. Registration of ERC Certificates:**

Rule 2301 Section 6.15 requires greenhouse gas emission reductions certificates include a notation that indicates how the emission reductions were quantified.

The shutdown of the turbines was not required by any regulatory requirement therefore, the certificates shall include a notation pursuant to Section 6.15.3:

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

#### **VIII. Recommendation:**

CUSA recommends that Emission Reduction Credits be issued as indicated above.

**APPENDIX A**  
**DATA TABLES**



### Historical Annual Average GHG Emissions A Fee

	S-1131-970 S-1131-973		Total	24 Month Block Differences vs Average
	MMBtu	MMBtu	MMBtu	
1999	443,172	457,105	900,277	
2000-05	2,302,762	2,381,462	4,684,224	
Oct-05*	3,269	3,206	6,475	*shown separately as these months are part of the preceding 5 year period, but fuel use included in the 2000-2005 total
Nov-05*	0	0	0	
Dec-05*	0	0	0	
Jan-06	3,570	4,709	8,280	
Feb-06	31,836	33,013	64,849	
Mar-06	30,157	31,817	61,974	
Apr-06	27,269	28,546	55,816	
May-06	27,243	35,708	62,951	
Jun-06	33,371	34,056	67,427	
Jul-06	32,326	33,354	65,680	
Aug-06	34,617	35,769	70,407	
Sep-06	32,941	34,048	66,989	
Oct-06	34,554	35,450	70,004	
Nov-06	19,010	27,188	46,198	
Dec-06	22,340	12,301	34,642	
Jan-07	31,847	7,462	39,310	
Feb-07	31,336	32,585	63,922	
Mar-07	32,323	34,050	66,373	
Apr-07	29,635	34,615	64,250	
May-07	34,565	35,841	70,407	
Jun-07	26,336	32,247	58,583	
Jul-07	32,212	35,792	68,004	
Aug-07	34,402	35,601	70,003	
Sep-07	32,969	34,318	67,287	52,076
Oct-07	34,578	36,046	70,624	54,749
Nov-07	33,454	34,966	68,420	57,600
Dec-07	8,089	26,932	35,021	59,059
Jan-08	31,322	34,023	65,345	61,437
Feb-08	31,291	30,660	61,951	61,316
Mar-08	33,743	34,963	68,706	61,597
Apr-08	33,443	34,478	67,921	62,101
May-08	33,988	35,853	69,841	62,388
Jun-08	32,824	34,997	67,821	62,404
Jul-08	18,380	16,450	34,831	61,119
Aug-08	0	0	0	58,185
Sep-08	0	0	0	55,394
Oct-08	0	0	0	52,477
Nov-08	0	0	0	50,552
Dec-08	0	0	0	49,109
Jan-09	0	0	0	47,471
Feb-09	16,127	17,277	33,404	46,263
Mar-09	3,888	1,223	5,111	43,730
Apr-09	0	0	0	41,053
May-09	0	0	0	38,120
Jun-09	0	13,195	13,195	36,228
Jul-09	38,468	38,161	76,629	36,588
Aug-09	20,436	29,054	49,490	35,733
Sep-09	33,567	33,070	66,636	35,706
Oct-09	36,013	35,013	71,026	35,723
Nov-09	33,895	33,015	66,910	35,660
Dec-09	31,587	29,910	61,497	36,763
Jan-10	34,779	33,700	68,479	36,894
Feb-10	31,866	31,402	63,268	36,949
Mar-10	34,069	34,263	68,331	36,933
Apr-10	32,580	29,775	62,355	36,701
May-10	35,096	33,827	68,923	36,663
Jun-10	20,609	20,386	40,996	35,545
Average			59,630	

The period August 2006 - July 2008 has an average monthly fuel use closest to the average source operation. As such the baseline period is September 2006 - August 2008.

The total MMBtu for August 2006 - July 2006 is: 1,466,856

### Historical Annual Average GHG Emissions C Fee

Month				24 month Block Differences vs Average
	S-1131-974	S-1131-1079	Total	
	MMBtu	MMBtu	MMBtu	
1999	477,962	460,167	938,129	
2000-05	2,340,058	2,308,193	4,648,251	
Oct-05*	33,917	34,087	68,004	*shown separately as these months are part of the preceding 5 year period, but fuel use included in the 2000-2005 total
Nov-05*	17,832	27,599	45,431	
Dec-05*	35,612	0	35,612	
Jan-06	0	0	0	
Feb-06	30,802	30,875	61,677	
Mar-06	31,004	31,353	62,357	
Apr-06	28,289	28,002	56,292	
May-06	34,779	32,670	67,448	
Jun-06	34,048	33,575	67,624	
Jul-06	34,303	33,278	67,580	
Aug-06	34,825	34,725	69,550	
Sep-06	33,707	33,357	67,064	
Oct-06	33,917	34,087	68,004	
Nov-06	17,832	27,599	45,431	
Dec-06	35,612	0	35,612	
Jan-07	30,822	0	30,822	
Feb-07	31,984	1,960	33,944	
Mar-07	34,597	27,410	62,007	
Apr-07	33,298	35,651	68,949	
May-07	35,099	36,767	71,867	
Jun-07	32,463	32,624	65,087	
Jul-07	35,285	34,354	69,640	
Aug-07	35,588	35,187	70,775	
Sep-07	33,737	31,972	65,709	56,520
Oct-07	35,962	17,929	53,891	55,932
Nov-07	35,111	97	35,207	55,506
Dec-07	32,123	598	32,721	55,386
Jan-08	32,132	1,966	34,099	56,807
Feb-08	32,488	91	32,579	55,594
Mar-08	34,761	6,931	41,692	54,733
Apr-08	33,390	21,845	55,235	54,689
May-08	34,115	611	34,726	53,326
Jun-08	25,683	0	25,683	51,578
Jul-08	0	0	0	48,762
Aug-08	0	0	0	45,864
Sep-08	0	0	0	43,070
Oct-08	0	0	0	40,236
Nov-08	0	0	0	38,344
Dec-08	0	0	0	36,860
Jan-09	0	0	0	35,575
Feb-09	0	0	0	34,161
Mar-09	0	0	0	31,577
Apr-09	0	0	0	28,705
May-09	11,907	0	11,907	28,206
Jun-09	4,448	0	4,448	23,680
Jul-09	25,550	0	25,550	21,843
Aug-09	29,065	0	29,065	20,105
Sep-09	22,500	0	22,500	18,304
Oct-09	30,659	0	30,659	17,336
Nov-09	31,193	0	31,193	17,169
Dec-09	25,923	0	25,923	16,886
Jan-10	22,136	0	22,136	16,387
Feb-10	30,145	0	30,145	16,286
Mar-10	34,417	0	34,417	15,983
Apr-10	32,094	0	32,094	15,019
May-10	34,807	0	34,807	15,022
Jun-10	20,759	0	20,759	14,817
Average			54,313	

The period May 2006 - April 2008 has an average monthly fuel use closest to the Average source operation. As such the historic annual greenhouse gas emissions are based on April 2006 - May 2008.

The total MMBtu for May 2006 - April 2008 is: 1,312,536



SEP 24 2013

Jason H. Donchin  
Chevron USA Inc  
P O Box 1392  
Bakersfield, CA 93302

**Re: Notice of Receipt of Complete Application - Emission Reduction Credits Banking**  
**Project Number: S-1120775**

Dear Mr. Donchin:

The District has completed a preliminary review of your application for CO<sub>2e</sub> Emission Reduction Credits (ERCs) Banking resulting from the shutdown of four gas turbine engines S-1131-970-0, '-973, '-974, and '-1179 at the A Fee and C fee leases.

Based on this preliminary review, the application appears to be complete. However, during processing of your application, the District may request additional information to clarify, correct, or otherwise supplement, the information on file.

Pursuant to District Rule 3060, your application may be subject to an hourly Engineering Evaluation Fee. If the applicable fees exceed the submitted application filing fee, the District will notify you at the conclusion of our review.

Thank you for your cooperation. Should you have any questions, please contact Mr. Steve Davidson at (661) 392-5618.

Sincerely,

David Warner  
Director of Permit Services

Leonard Scandura, P.E.  
Permit Services Manager

DW: sdd

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

# EMISSION REDUCTION CREDIT BANKING APPLICATION REVIEW

**Facility Name:** Chevron USA, Inc.  
**Mailing Address:** PO Box 1392  
Bakersfield, CA 93302

**Contact Name:** Jason H. Donchin  
**Telephone:** (661) 654-7144

**Facility:** S-1131  
**Permit Numbers:** S-1131-970, '-973, '-974, and '-1079

**ERC Certificate Numbers:** S-4113-24 & S-4114-24  
**Project Number:** S-1120775

**Date Received:** March 14, 2012  
**Date Complete:** September 24, 2012

**Engineer:** Steve Davidson  
**Date:** October 29, 2013

**Lead Engineer:** Allan Phillips, Supervising AQE

## I. SUMMARY:

The primary business of this facility is crude oil and gas production. Chevron USA, Inc has permanently shut down, removed, and surrendered the Permit to Operate (PTO) for four Solar gas turbines (S-1131-970, '-973, '-974, and '-1079) in October 2010. The facility had submitted an application to bank the emission reduction credits (ERCs) for the actual emission reductions (AER) of the criteria pollutants on November 30, 2010 (ERC Project S-1105004).

Subsequently, the facility has submitted this application to bank the Greenhouse Gas (GHG) AER that also resulted from the shut down of the turbines. See the surrendered PTOs in Appendix A.

### Selection of Geographical Boundary for Determining Permanence of the GHG Emission Reduction

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 California Environmental Quality Act (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 any particular project.

For this application, the facility has selected California as the geographical boundary for which the emission reduction is permanent. Chevron has provided a graph showing the decline in California Oil Production from 1995 to 2012. Additionally, Chevron is an entity covered by California CAP and Trade (AB32), AB 32 requires California to return to 1990 levels of greenhouse gas emissions by 2020. Therefore, Chevron will have to mitigate a 15% reduction in greenhouse gas emissions compared to the 'business-as-usual' scenario in 2020. This information validates California as the geographical boundary selection for a permanent GHG emission reduction.

The following emission reductions have been found to qualify for banking:

		ERC (lb)
ERC #		Metric Tons per Year
S-4113-24	CO <sub>2</sub> e	36,937 metric tons/year
S-4114-24	CO <sub>2</sub> e	33,851 metric tons/year

**II. APPLICABLE RULES:**

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

**III. LOCATION OF REDUCTION:**

The four Solar gas turbines are located in the Kern River Oilfield within Chevron's Kern County Heavy Oil Central stationary source.

ERC: S-4113-24

S-1131-970: A Fee lease #1, Section 25, Township 28S, Range 27E  
S-1131-973: A Fee lease #2, Section 25, Township 28S, Range 27E

ERC: S-4114-24

S-1131-974: C Fee lease #2, Section 30, Township 28S, Range 27E  
S-1131-1079: C Fee lease #1, Section 30, Township 28S, Range 27E

**IV. METHOD OF GENERATING EMISSION REDUCTIONS:**

The emission reductions are being generated by removing four natural gas fired Solar gas turbines.

Equipment Shut down:

PTO	Equipment
S-1131-970	COGENERATION UNIT #1 (NORTH UNIT) SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE A
S-1131-973	COGENERATION UNIT #1 (WEST) SOLAR CENTAUR TYPE H, 52.4 MM BTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - FEE A
S-1131-974	COGENERATION UNIT #2 (EAST): SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MV, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE C
S-1131-1079	COGENERATION UNIT #1 (FEE C LEASE - WEST UNIT) SOLAR CENTAUR 50-T5901S, 48.7 MMBTU/HR GAS FIRED DOE CERAMIC GTE, 4.1 MW, WITH LUBE OIL MIST ELIMINATOR, UNFIRED HEAT RECOVERY STEAM GENERATOR, AND CONTINUOUS MONITORING SYSTEM

## V. CALCULATIONS:

### A. Assumptions and Emission Factors

#### **Assumptions**

The actual emissions will be calculated annually in the baseline period. The Historical Actual Emissions (HAE) will be calculated using actual fuel use data and accepted emissions factors.

The applicant provided monthly fuel use data for the subject engines from the second quarter 2008 through the first quarter 2010.

- Units of GHG AER is metric tons of CO<sub>2</sub>e per year, rounded to the nearest metric ton
- 1,000 kg = 1 metric ton
- 1 therm of Natural Gas = 100 scf
- The final CO<sub>2</sub>e emission factor from the combustion of natural gas includes GHG emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, 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 CO<sub>2</sub>e equivalent emission factor is from the District's Spreadsheet "ARB – Greenhouse Gas Emissions factors and is listed below.

$$EF_{CO_2e} = 52.9199 \text{ KG/MMBtu}$$

$$EF_{CO_2e} = 52.9199 \text{ KG/MMBtu} \times (1 \text{ metric ton} / 1000 \text{ kg})$$

$$EF_{CO_2e} = 0.0529 \text{ metric tons/MMBtu}$$

### B. Baseline Period Determination

Pursuant to Rule 2301 section 4.5.4, the Baseline Period is the following:

*The consecutive 24 month period immediately prior to the date the emission reduction occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred.*

The original ERC Banking Project S-1131, 1105004 specified the baseline period. 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.

The Baseline Period is listed below:

Baseline Periods		
Lease	Permit Unit	Dates
A Fee lease (S25, T28S, R27E)	S-1131-970	September 2006 – August 2008
	S-1131-973	
C Fee lease (S30, T28S, R27E)	S-1131-974	July 2006 – June 2008
	S-1131-1079	

### **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 the original ERC project, and is posted in the following table.

Baseline Fuel Usage	
Permit	Annual Fuel Use (Therms)
S-1131-970	342,792
S-1131-973	355,435
S-1131-974	398,601
S-1131-1079	241,308

### **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.

Example Equation

**Permit S-1131-970 (Annual):**

$$\text{CO}_2\text{e} = [(\text{CO}_2\text{e EF}) \times (\text{Heat Input})]$$

$$\text{CO}_2\text{e} = [(0.0529 \text{ Metric Tons/MMbtu}) \times (342,792 \text{ MMBtu/year}) = 18,134 \text{ Metric Tons/year}]$$



Annual Emissions: Lease A Fee lease, Permit Units S-1131-970 & '-973			
Permit Unit	EF <sub>CO2e</sub> (Metric Tons/MMBtu)	Energy Input (MMBtu/yr)	CO <sub>2e</sub> (Metric Tons/yr)
S-1131-970	0.0529	342,792	18,134
S-1131-973	0.0529	355,435	18,803
<b>Total</b>			<b>36,937</b>

Annual Emissions: Lease C Fee lease, Permit Units S-1131-974 & '-1079			
Permit Unit	EF <sub>CO2e</sub> (Metric Tons/MMBtu)	Energy Input (MMBtu/yr)	CO <sub>2e</sub> (Metric Tons/yr)
S-1131-974	0.0529	398,601	21,086
S-1131-1079	0.0529	241,308	12,765
<b>Total</b>			<b>33,851</b>

**E. Post Project Potential to Emit (PE2)**

As discussed above, the subject equipment has been permanently shut down and the PTOs were surrendered. No other equipment has taken the place of the turbines as a source of steam in the Kern River oilfield. 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.

ERCs eligible for banking = HAE – PE2

ERC Certificate S-4113-24: Lease A Fee lease, Permit Units S-1131-970 & '-973		
HAE (metric ton/year)	PE2 (metric ton/year)	CO <sub>2e</sub> eligible for banking (metric ton/year)
36,937	0	36,937

ERC Certificate S-4114-24: Lease C Fee lease, Permit Units S-1131-974 & '-1079		
HAE (metric ton/year)	PE2 (metric ton/year)	CO <sub>2e</sub> eligible for banking (metric ton/year)
33,851	0	33,851

## VI. COMPLIANCE:

Per District Rule Section 4.5, the following criteria must be met in order to deem such reductions eligible for banking:

- 4.5.1** The greenhouse gas emission reduction must have actually occurred on or after January 1, 2005, except as allowed in specific CARB approved GHG emission reduction project protocols.

The emission reductions occurred when the PTO was surrendered on March 8, 2011. As the emission reduction occurred after 1/1/05, this criteria has been satisfied.

- 4.5.2** The greenhouse gas emission reductions must have occurred within the San Joaquin Valley Unified Air Pollution Control District.

The emissions occurred at Kern River Oilfield within Chevron's Kern County Heavy Oil Central stationary source. Since this location is within the District, this criteria has been satisfied.

- 4.5.3** The greenhouse gas emission reductions are real, surplus, permanent, quantifiable, and enforceable, except as provided in Section 4.5.5.

### **Real:**

The GHG emission reductions were generated by the shutdown of four Solar gas turbines (S-1131-970, '-973, '-1073, and '-974). The real emissions were calculated from actual historic fuel-use data and recognized emission factors. The Solar gas turbines have been removed from service. Therefore, the emission reductions are real.

### **Surplus:**

The facility is subject to the CARB cap and trade regulation; however, the reductions occurred prior January 1, 2012; therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.1.

The facility is subject to the CARB cap and trade regulation; however, the reductions occurred prior to the baseline period of cap and trade. 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 Certificates will be identified according to Section 6.15.3 below.

**Permanent:**

The gas turbines have been shut down, removed, and the PTOs have been surrendered.

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. Then 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.

Chevron has selected California as the geographical boundary for which the emission reduction is permanent. Chevron has provided information verifying that the total oil production in the state of California has been in decline since 1985 (see graph in Appendix C). Additionally, Chevron is subject to the California Cap-and-Trade regulation which requires Chevron to reduce or mitigate a permanent reduction in GHG emissions. The combination of the decline in oil production in California and the reductions required by California's Cap-and-Trade regulation verify that the reductions are permanent within California. The geographical boundary for the ERCs will be the State of California and the ERC will include the following identifier:

"Shutdown of the gas turbines are 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 gas turbines have 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.

- 4.5.4** Greenhouse gas emission reductions are calculated as the difference between the historic annual average greenhouse gas emissions (as CO<sub>2</sub>E) calculated using the consecutive 24 month period immediately prior to the date the emission reduction occurred, 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, and the potential greenhouse gas emissions (as CO<sub>2</sub>E) after the project is complete, except as provided in section 4.5.5.

The GHG emission reductions were calculated according to the baseline period identified above. Since this is a permanent shutdown of the steam turbines, with none of the load being shifted to other units in California, there is no post-project potential to emit GHG.

- 4.5.5** Greenhouse gas 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.

- 4.5.6** Emission reduction credits shall be made enforceable through permit conditions. If the District, pursuant to state laws, is prohibited from permitting the emission unit, the source creating the greenhouse gas emission reduction shall execute a legal binding contract with the District which ensures that the emission reductions will be generated in accordance with the provisions of this rule, and shall continue for the reasonably

The steam turbines held a legal District operating permit. That permit has been surrendered to the District. Since the operation of the steam turbines 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 original greenhouse gas ERC application was submitted on 11/30/10 as part of project S1105004, therefore the application is timely.

**Section 6.15** specifies the registration requirements for GHG ERCs.

**Section 6.15.13** requires, the 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:**

After public notice, comments and review, issue ERCs to Chevron USA in the amounts shown below:

ERC S-4113-24, Lease A Fee lease, Permit Units S-1131-970 & '-973:

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4113-24	CO <sub>2</sub> e	36,937 metric tons/year

ERC S-3604, Lease C Fee lease, Permit Units S-1131-974 & '-1079:

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4114-24	CO <sub>2</sub> e	33,851 metric tons/year

**Appendix A**

**Permits S-1131-970, '-973, '-974 , and '-1079**

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-970-9

EXPIRATION DATE: 02/28/2006

SECTION: 25 TOWNSHIP: 28S RANGE: 27E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #1 (NORTH UNIT) SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR  
- LEASE FEE A

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FERC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
4. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
7. Nitrogen oxides (NO<sub>x</sub>) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O<sub>2</sub>) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
8. The operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
9. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
S-1131-970-9; Sep 18 2003 11:44AM - MARRADONP

11. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] Federally Enforceable Through Title V Permit
12. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
14. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit
15. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
16. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
17. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
22. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(c), District NSR Rule] Federally Enforceable Through Title V Permit
23. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
24. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
25. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
26. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] 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.



27. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H2O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.0031 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or VOC: 0.010 lb/MMBTU. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
34. Except during periods of thermal stabilization or reduced load, CO emissions rate shall not exceed 65.0 ppmv @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]
36. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SOx (as SO2): 3.9 lb/day, NOx (as NO2): 162.2 lb/day, VOC: 12.6 lb/day, or CO: 183.6 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-973-9

EXPIRATION DATE: 02/28/2006

SECTION: NE6 TOWNSHIP: 29S RANGE: 28E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #1 (WEST) SOLAR CENTAUR TYPE H, 52.4 MM BTU/HR GAS FIRED TURBINE ENGINE, 3.725 MW, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE B

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FERC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
4. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4]
8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
9. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
11. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
S-1131-973-9 - Exp 12 2003 to 1/2006 - 10/2006

12. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
13. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
14. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)]
15. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
16. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
17. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
22. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(c), District NSR Rule] Federally Enforceable Through Title V Permit
23. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
24. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
25. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
26. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] Federally Enforceable Through Title V Permit
27. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of permit anniversary date. [District Rule 1081] 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.

29. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule]
31. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H2O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.0031 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or VOC: 0.010 lb/MMBTU. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
34. Except during periods of thermal stabilization or reduced load, CO emissions rate shall not exceed 65.0 ppmv @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]
36. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SOx (as SO2): 3.9 lb/day, NOx (as NO2): 162.2 lb/day, VOC: 12.6 lb/day, or CO: 183.6 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1131-974-8

EXPIRATION DATE: 02/28/2006

SECTION: NE30 TOWNSHIP: 28S RANGE: 28E

## EQUIPMENT DESCRIPTION:

COGENERATION UNIT #2 (EAST); SOLAR CENTAUR TYPE H, 52.4 MMBTU/HR GAS FIRED TURBINE ENGINE, 3.725 MV, WITH WATER INJECTION AND STRUTHERS UNFIRED HEAT RECOVERY STEAM GENERATOR - LEASE FEE C

## PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-regulated or FERC-regulated natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit
2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
3. Operator shall not exceed a NOx emission rate of 35 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit
5. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
6. If the turbine is not fired on PUC-regulated or FERC-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. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
10. If the turbine is fired on PUC-regulated or FERC-regulated natural gas, then maintain on file copies of natural gas bills or other relevant records. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a), (b) and District Rule 4703, 6.2.4] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
S-1131-974-8; 2-1-2006 8:25PM - SUBIT

12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [40 CFR 60.334] Federally Enforceable Through Title V Permit
13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
15. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit
16. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit
17. Except during periods of startup/shutdown, any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit
18. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Gas turbine engine shall be equipped with water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to ensure emission limits compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit
23. Except during periods of startup/shutdown, if water injection system is inoperative, gas turbine engine shall be shut down. [40 CFR 60.8(c), District NSR Rule] Federally Enforceable Through Title V Permit
24. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
25. All steam produced by this source operation shall be used only in existing TEOR operation(s) served by existing vapor control system(s). [District NSR Rule] Federally Enforceable Through Title V Permit
26. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
27. Emissions increases from new wells in zone steamed by this equipment shall be controlled and mitigated as required by District NSR Rule and District Rule 4401 (amended 1/15/98). [District NSR Rule] 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.

28. Source testing shall be conducted for at least three levels of operating range of water to fuel ratio to demonstrate previously established ratio correlation with NOx emissions remains valid. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit
29. Compliance with nitrogen oxide, and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory annually within 60 days of permit anniversary date. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
30. Source test results and fuel test data shall be submitted within 60 days after sample collection with water to fuel injection ratio, on mass basis, determined at time of stack gas sampling. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Permittee shall keep accurate daily records of turbine water to fuel injection ratio and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Gas turbine engine shall be equipped with continuously recording oxides of nitrogen and oxygen monitors. NOx monitoring system requirement may be substituted or replaced upon documentation that H2O/fuel ratio correlates well with NOx emission rate. [District NSR Rule] Federally Enforceable Through Title V Permit
33. Permittee shall submit compliance testing plan to the District within 60 days prior to permit anniversary date. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Except during periods of startup/shutdown, emission rates for this unit shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.0031 lb/MMBTU, NOx (as NO2): 35 ppmv @ 15% O2, VOC: 0.010 lb/MMBTU, or CO: 57.0 ppmv @ 15% O2. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
35. Emission rates for this unit shall not exceed any of the following: PM-10: 18.9 lb/day, SOx (as SO2): 3.9 lb/day, NOx (as NO2): 163.4 lb/day, VOC: 12.6 lb/day, or CO: 162.2 lb/day [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rule 407; 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT: S-1131-1079-6**

**EXPIRATION DATE: 02/28/2006**

**SECTION: NE6 TOWNSHIP: 29S RANGE: 28E**

**EQUIPMENT DESCRIPTION:**

**COGENERATION UNIT #1 (FEE C LEASE - WEST UNIT) SOLAR CENTAUR 50-T5901S, 48.7 MMBTU/HR GAS FIRED DOE CERAMIC GTE, 4.1 MW, WITH LUBE OIL MIST ELIMINATOR, UNFIRED HEAT RECOVERY STEAM GENERATOR, AND CONTINUOUS MONITORING SYSTEM.**

**PERMIT UNIT REQUIREMENTS**

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1. Gas turbine shall be fired exclusively with PUC or FERC regulated natural gas or natural gas documented to be of comparable quality. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator exhaust stack shall be equipped with permanent provisions to allow collection of gas sample consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: PM-10: 0.015 lb/MMBTU, SOx (as SO2): 0.003 lb/MMBTU, NOx (as NO2): 25 ppmv @ 15% O2, VOC: 0.016 lb/MMBTU, or CO: 33 ppmv @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions shall not exceed either of the following NSPS Subpart GG limits (1 hour standard): NOx (as NO2): 171 ppmvd @ 15% O2, or SOx (as SO2): 150 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit
7. Permittee shall satisfy all applicable requirements of District Rule 4001, New Source Performance Standards - Subpart GG and notification and reporting requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
8. Compliance source testing for NOx, CO and demonstrated percent efficiency shall be conducted within 60 days of initial startup, and not less than once every 12 months for each mode of operation (standard operation and each experimental mode of operation). [District Rule 4703] Federally Enforceable Through Title V Permit
9. Compliance source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
10. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District 1081] Federally Enforceable Through Title V Permit
11. 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
12. Compliance with SOx emission limits shall be demonstrated by fuel gas sulfur content analysis at the time of NOx testing. Sulfur testing is not required for PUC or FERC regulated natural gas. [District Rule 1081] 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.

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA  
9-1121-1079-6 Rev 4 2002 10 12444 - 7/10/2004



13. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or EPA Method 20, CO (ppmv) - EPA Method 10 or 10B, stack gas oxygen - EPA Methods 3, 3A or 20, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
14. Permittee shall maintain onsite for a period of at least five years accurate daily records of Predictive Emissions Monitoring System (PEMS) gas turbine engine exhaust NOx concentrations and such records shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Permittee's written request for approval of experimental components and operating conditions shall include at minimum the following information: components to be installed and conditions for operation, expected duration of operation, and description of, and justification for, expected emissions and maximum heat input rate. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
16. Permittee's request for approval of experimental components and operating conditions shall be submitted to the District at least 30 days prior to the initial planned installation date. The permittee shall also notify the District at least 15 days prior to the initial actual installation of the experimental components or start of operating conditions. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
17. Permittee shall notify the District, in writing, of turbine operating mode (standard or experimental) no later than 48 hours after changing mode of operation. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
18. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
19. Operator shall not exceed a NOx emission rate of: A. (If Rating <10 MW) 42 ppmvd @ 15% O<sub>2</sub>, excluding the thermal stabilization periods or reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2); District Rule 4703, 5.1.1] Federally Enforceable Through Title V Permit
20. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Kern County Rule 108.1; District Rule 1081] Federally Enforceable Through Title V Permit
21. The HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
22. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
23. The operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703, 5.1.1. [40 CFR 60.332(a),(b) and 4703, 5.1.1] Federally Enforceable Through Title V Permit
24. Operations during periods of startup and shutdown shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. Operation during periods of malfunction shall not constitute representative conditions for the purpose of determining compliance with emission limits based on 40 CFR 60.8 [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
25. If the turbine is fired on PUC or FERC-regulated natural gas or natural gas documented to be of comparable quality, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and 4703, 6.2.4] Federally Enforceable Through Title V Permit
27. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] 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.

28. Permittee shall maintain onsite for a period of at least five years accurate records of daily fuel consumption, daily fuel sulfur content, and daily fuel nitrogen content and shall make such records readily available for District inspection upon request. Daily monitoring of fuel sulfur and nitrogen contents is not required for PUC or FERC regulated natural gas. [District Rules 4001 and 2201] Federally Enforceable Through Title V Permit

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

**Appendix B**  
**Fuel Use Records**

Kern River Fee Cogen Operational Data

Month	A Fee #1 S-1131-970			A Fee #2 S-1131-973			C Fee #2 S-1131-974			C Fee #1 S-1131-1079		
	Mscf	HHV (btu/s cf)	MMBtu	Mscf	HHV (btu/s cf)	MMBtu	Mscf	HHV (btu/scf)	MMBtu	Mscf	HHV (btu/scf)	MMBtu

Kern River Fee Cogen Operational Data

Month	A Fee #1 S-1131-970			A Fee #2 S-1131-973			C Fee #2 S-1131-974			C Fee #1 S-1131-1079		
	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu	Mscf	HHV	MMBtu
Oct-05	3,137	1,042	3,269	3,077	1,042	3,206	32,271	1,051	33,917	32,433	1,051	34,087
Nov-05	0	1,050	0	0	1,050	0	16,934	1,053	17,832	26,210	1,053	27,599
Dec-05	0	1,062	0	0	1,062	0	33,820	1,053	35,612	0	1,053	0
Jan-06	3,410	1,047	3,570	4,498	1,047	4,709	0	1,053	0	0	1,053	0
Feb-06	30,205	1,054	31,836	31,322	1,054	33,013	29,224	1,054	30,802	29,293	1,054	30,875
Mar-06	28,721	1,050	30,157	30,302	1,050	31,817	29,528	1,050	31,004	29,860	1,050	31,353
Apr-06	26,070	1,046	27,269	27,291	1,046	28,546	27,045	1,046	28,289	26,771	1,046	28,002
May-06	26,070	1,045	27,243	34,170	1,045	35,708	33,281	1,045	34,779	31,263	1,045	32,670
Jun-06	31,873	1,047	33,371	32,527	1,047	34,056	32,520	1,047	34,048	32,068	1,047	33,575
Jul-06	30,728	1,052	32,326	31,705	1,052	33,354	32,607	1,052	34,303	31,633	1,052	33,278
Aug-06	32,875	1,053	34,617	33,988	1,053	35,789	33,072	1,053	34,825	32,977	1,053	34,725
Sep-06	31,313	1,052	32,941	32,365	1,052	34,048	32,041	1,052	33,707	31,708	1,052	33,357
Oct-06	32,877	1,051	34,554	33,730	1,051	35,450	32,271	1,051	33,917	32,433	1,051	34,087
Nov-06	18,053	1,053	19,010	25,820	1,053	27,188	16,934	1,053	17,832	26,210	1,053	27,599
Dec-06	21,216	1,053	22,340	11,682	1,053	12,301	33,820	1,053	35,612	0	1,053	0
Jan-07	30,302	1,051	31,847	7,100	1,051	7,462	29,326	1,051	30,822	0	1,053	0
Feb-07	29,731	1,054	31,336	30,916	1,054	32,585	30,345	1,054	31,984	1,865	1,051	1,960
Mar-07	31,080	1,040	32,323	32,740	1,040	34,050	33,266	1,040	34,597	26,356	1,040	27,410
Apr-07	28,359	1,045	29,635	33,124	1,045	34,615	31,864	1,045	33,298	34,116	1,045	35,651
May-07	33,077	1,045	34,565	34,298	1,045	35,841	33,588	1,045	35,099	35,184	1,045	36,767
Jun-07	25,250	1,043	26,336	30,918	1,043	32,247	31,125	1,043	32,463	31,279	1,043	32,624
Jul-07	30,825	1,045	32,212	34,251	1,045	35,792	33,766	1,045	35,285	32,875	1,045	34,354
Aug-07	32,795	1,049	34,402	33,938	1,049	35,601	33,926	1,049	35,588	33,543	1,049	35,187
Sep-07	31,519	1,046	32,969	32,809	1,046	34,318	32,253	1,046	33,737	30,566	1,046	31,972
Oct-07	32,994	1,048	34,578	34,395	1,048	36,046	34,315	1,048	35,962	17,108	1,048	17,929
Nov-07	31,831	1,051	33,454	33,269	1,051	34,966	33,407	1,051	35,111	92	1,051	97
Dec-07	7,682	1,053	8,089	25,576	1,053	26,932	30,506	1,053	32,123	568	1,053	598
Jan-08	29,802	1,051	31,322	32,372	1,051	34,023	30,573	1,051	32,132	1,871	1,051	1,966
Feb-08	29,972	1,044	31,291	29,368	1,044	30,660	31,119	1,044	32,488	87	1,044	91
Mar-08	32,445	1,040	33,743	33,618	1,040	34,963	33,424	1,040	34,761	6,664	1,040	6,931

Apr-08	31,911	1,048	33,443	32,899	1,048	34,478	31,861	1,048	33,390	20,844	1,048	21,845
May-08	32,618	1,042	33,988	34,408	1,042	35,853	32,740	1,042	34,115	586	1,042	611
Jun-08	31,321	1,048	32,824	33,394	1,048	34,997	24,507	1,048	25,683	0	1,048	0
Jul-08	17,555	1,047	18,380	15,712	1,047	16,450	0	1,048	0	0	1,047	0
Aug-08	0	1,047	0	0	1,047	0	0	1,048	0	0	1,047	0
Sep-08	0	1,044	0	0	1,044	0	0	1,044	0	0	1,044	0
Oct-08	0	1,036	0	0	1,036	0	0	1,036	0	0	1,036	0
Nov-08	0	1,037	0	0	1,037	0	0	1,037	0	0	1,037	0
Dec-08	0	1,047	0	0	1,047	0	0	1,047	0	0	1,051	0
Jan-09	0	1,040	0	0	1,040	0	0	1,040	0	0	1040	0
Feb-09	17,396	1,042	18,127	16,581	1,042	17,277	0	1,042	0	0	1042	0
Mar-09	3,760	1,034	3,888	1,183	1,034	1,223	0	1,034	0	0	1034	0
Apr-09	0	1,036	0	0	1,036	0	0	1,036	0	0	1036	0
May-09	0	1,037	0	0	1,037	0	11,482	1,037	11,907	0	1037	0
Jun-09	0	958	0	13,773	958	13,195	4,298	1,035	4,448	0	1035	0
Jul-09	41,859	919	38,468	41,524	919	38,161	27,239	938	25,550	0	938	0
Aug-09	20,939	976	20,436	29,768	976	29,054	30,088	966	29,065	0	966	0
Sep-09	32,338	1,038	33,567	31,859	1,038	33,070	21,676	1,038	22,500	0	1038	0
Oct-09	34,762	1,036	36,013	33,796	1,036	35,013	29,594	1,036	30,659	0	1036	0
Nov-09	32,876	1,031	33,895	32,022	1,031	33,015	30,255	1,031	31,193	0	1031	0
Dec-09	30,667	1,030	31,587	29,039	1,030	29,910	25,168	1,030	25,923	0	1030	0
Jan-10	33,733	1,031	34,779	32,687	1,031	33,700	21,470	1,031	22,136	0	1031	0
Feb-10	30,908	1,031	31,866	30,458	1,031	31,402	29,239	1,031	30,145	0	1031	0
Mar-10	32,885	1,036	34,069	33,072	1,036	34,263	33,221	1,036	34,417	0	1036	0
Apr-10	31,570	1,032	32,580	28,852	1,032	29,775	31,099	1,032	32,094	0	1032	0
May-10	33,975	1,033	35,096	32,746	1,033	33,827	33,695	1,033	34,807	0	1033	0
Jun-10	19,874	1,037	20,609	19,659	1,037	20,386	20,018	1,037	20,759	0	1037	0
Jul-10	0	1,037	0	0	1,037	0	0	1,037	0	0	1,037	0
Aug-10	0	1,035	0	0	1,037	0	0	1,037	0	0	1,037	0
Sep-10	0	1,036	0	0	1,037	0	0	1,037	0	0	1,037	0
Oct-10	0	1,036	0	0	1,037	0	0	1,037	0	0	1,037	0

60-Mo

Avg MMBtu =

1,039

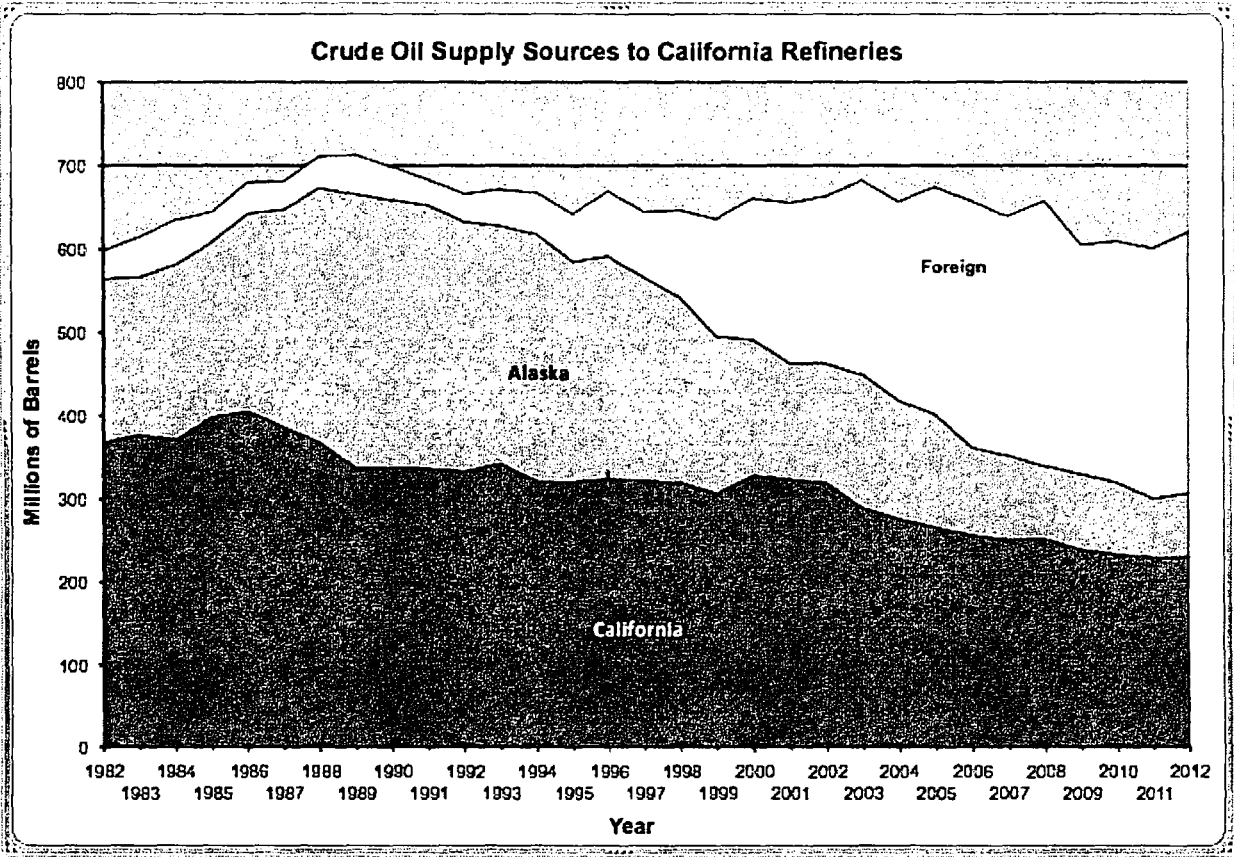
1,039

1,040

1,041

From previous month

**Appendix C**  
**Oil Production Graph**



[http://energyalmanac.ca.gov/petroleum/statistics/crude\\_oil\\_receipts.html](http://energyalmanac.ca.gov/petroleum/statistics/crude_oil_receipts.html)

**Appendix D**  
**Baseline Period Determination**



Fee A	S-1131-970 MMBtu	S-1131-973 MMBtu	Total MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
1999	443,172	457,105	900,277				
2000-2005	2,302,762	2,381,462	4,684,224				
Oct -05 *	3,269	3,206	6,475				
Nov - 05 *	-	-	-				
Dec - 05 *	-	-	-				
Jan-06	3,570	4,709	8,280				
Feb-06	31,836	33,013	64,849				
Mar-06	30,157	31,817	61,974				
Apr-06	27,269	28,546	55,816				
May-06	27,243	35,708	62,951				
Jun-06	33,371	34,056	67,427				
Jul-06	32,326	33,354	65,680				
Aug-06	34,617	35,789	70,407				
Sep-06	32,941	34,048	66,989				
Oct-06	34,554	35,450	70,004				
Nov-06	19,010	27,188	46,198				
Dec-06	22,340	12,301	34,642				
Jan-07	31,847	7,462	39,310				
Feb-07	31,336	32,585	63,922				
Mar-07	32,323	34,050	66,373				
Apr-07	29,635	34,615	64,250				
May-07	34,565	35,841	70,407				
Jun-07	26,336	32,247	58,583				
Jul-07	32,212	35,792	68,004				
Aug-07	34,402	35,601	70,003				
Sep-07	32,969	34,318	67,287	59,207			
Oct-07	34,578	36,046	70,624	59,726			
Nov-07	33,454	34,966	68,420	60,104			
Dec-07	8,089	26,932	35,021	59,059			
Jan-08	31,322	34,023	65,345	61,437			
Feb-08	31,291	30,660	61,951	61,316			
Mar-08	33,743	34,963	68,706	61,597			
Apr-08	33,443	34,478	67,921	62,101			
May-08	33,988	35,853	69,841	62,388			
Jun-08	32,824	34,997	67,821	62,404			
Jul-08	18,380	16,450	34,831	61,119			
Aug-08	-	-	-	58,185			
Sep-08	-	-	-	55,394	56,177		
Oct-08	-	-	-	52,477	54,525		
Nov-08	-	-	-	50,552	52,967		
Dec-08	-	-	-	49,109	51,495		
Jan-09	-	-	-	47,471	51,265		

\* shown separately as these months are part of the preceding 5 year period, but fuel use included in 2000-2005 total

This preceding 24 month period has an average monthly fuel use closest to the historic monthly fuel use.

Therefore, the 24 month period Sep 2006 - Aug 2008 most closely represent normal source operation. As such, the baseline period is Sep 2006 - Aug 2008.

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

Fee A	S-1131-970 MMBtu	S-1131-973 MMBtu	Total MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Feb-09	18,127	17,277	35,404	46,283	50,447		
Mar-09	3,888	1,223	5,111	43,730	48,868		
Apr-09	-	-	-	41,053	47,318		
May-09	-	-	-	38,120	45,569		
Jun-09	-	13,195	13,195	36,228	44,062		
Jul-09	38,468	38,161	76,629	36,588	44,367		
Aug-09	20,436	29,054	49,490	35,733	43,786		
Sep-09	33,567	33,070	66,636	35,706	43,776	46,673	
Oct-09	36,013	35,013	71,026	35,723	43,804	47,203	
Nov-09	33,895	33,015	66,910	35,660	44,379	47,622	
Dec-09	31,587	29,910	61,497	36,763	45,125	47,911	
Jan-10	34,779	33,700	68,479	36,894	45,936	49,165	
Feb-10	31,866	31,402	63,268	36,949	45,918	49,132	
Mar-10	34,069	34,263	68,331	36,933	45,972	49,265	
Apr-10	32,580	29,775	62,356	36,701	45,919	49,401	
May-10	35,096	33,827	68,923	36,663	45,878	49,525	
Jun-10	20,609	20,386	40,996	35,545	45,390	48,975	
Jul-10	-	-	-	34,094	43,501	47,606	
Aug-10	-	-	-	34,094	41,556	46,140	
Sep-10	-	-	-	34,094	39,687	44,744	
Oct-10	-	-	-	34,094	37,725	43,286	46,070

Average monthly fuel use  
over 142 months of data provided  
Normal source operation (NSO) 58,145

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

Fee C	S-1131-974 MMBtu	S-1131-1079 MMBtu	Total Lease MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Jan - Dec 1999	477,962	460,167	938,129				
2000-2005	2,340,058	2,308,193	4,648,251				
Oct -05 *	33,917	34,087	68,004				
Nov - 05 *	17,832	27,599	45,431				
Dec - 05 *	35,612	-	35,612				
Jan-06	-	-	-				
Feb-06	30,802	30,875	61,677				
Mar-06	31,004	31,353	62,357				
Apr-06	28,289	28,002	56,292				
May-06	34,779	32,670	67,448				
Jun-06	34,048	33,575	67,624				
Jul-06	34,303	33,278	67,580				
Aug-06	34,825	34,725	69,550				
Sep-06	33,707	33,357	67,064				
Oct-06	33,917	34,087	68,004				
Nov-06	17,832	27,599	45,431				
Dec-06	35,612	0	35,612				
Jan-07	30,822	0	30,822				
Feb-07	31,984	1,960	33,944				
Mar-07	34,597	27,410	62,007				
Apr-07	33,298	35,651	68,949				
May-07	35,099	36,767	71,867				
Jun-07	32,463	32,624	65,087				
Jul-07	35,285	34,354	69,640				
Aug-07	35,588	35,187	70,775				
Sep-07	33,737	31,972	65,709	56,520			
Oct-07	35,962	17,929	53,891	55,932			
Nov-07	35,111	97	35,207	55,506			
Dec-07	32,123	598	32,721	55,386			
Jan-08	32,132	1,966	34,099	56,807			
Feb-08	32,488	91	32,579	55,594			
Mar-08	34,761	6,931	41,692	54,733			
Apr-08	33,390	21,845	55,235	54,689			
May-08	34,115	611	34,726	53,326			
Jun-08	25,683	0	25,683	51,578			
Jul-08	0	0	0	48,762			
Aug-08	0	0	0	45,864			
Sep-08	0	0	0	43,070	47,287		
Oct-08	0	0	0	40,236	45,398		
Nov-08	0	0	0	38,344	44,136		
Dec-08	0	0	0	36,860	43,146		
Jan-09	0	0	0	35,575	43,146		

\* shown separately as these months are part of the preceding 5 year period, but fuel use included in 2000-2005 total

This period has an average monthly fuel use closest to the historic monthly fuel use.

Therefore, the 24 months period Sep 2006 Aug 2008 most closely represent normal source operation. As such, the baseline period is Sep 2006 - Aug 2008.

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

Fee C	S-1131-974 MMBtu	S-1131-1079 MMBtu	Total Lease MMBtu	24 month block averages *	36 month block averages *	48 month block averages *	60 month *
Feb-09	0	0	0	34,161	41,433		
Mar-09	0	0	0	31,577	39,701		
Apr-09	0	0	0	28,705	38,137		
May-09	11,907	0	11,907	26,206	36,595		
Jun-09	4,448	0	4,448	23,680	34,840		
Jul-09	25,550	0	25,550	21,843	33,672		
Aug-09	29,065	0	29,065	20,105	32,548		
Sep-09	22,500	0	22,500	18,304	31,310	37,412	
Oct-09	30,659	0	30,659	17,336	30,272	36,634	
Nov-09	31,193	0	31,193	17,169	29,877	36,338	
Dec-09	25,923	0	25,923	16,886	29,608	36,136	
Jan-10	22,136	0	22,136	16,387	29,366	36,597	
Feb-10	30,145	0	30,145	16,286	29,261	35,940	
Mar-10	34,417	0	34,417	15,983	28,495	35,358	
Apr-10	32,094	0	32,094	15,019	27,471	34,854	
May-10	34,807	0	34,807	15,022	26,441	34,174	
Jun-10	20,759	0	20,759	14,817	25,210	33,197	
Jul-10	0	0	0	14,817	23,276	31,789	
Aug-10	0	0	0	14,817	21,310	30,341	
Sep-10			0	14,817	19,484	28,943	
Oct-10			0	14,817	17,987	27,527	33,165

Average monthly fuel use  
over 142 months of data provided  
Normal source operation (NSO) 52,783

\* block averages are for periods (24, 46, 48, 60 month) preceding the date indicated. Block averages are for periods that begin no earlier than Oct 2005, i.e. 5 years before the date the shutdown occurred.

**Appendix E**

**Draft ERCs**

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

**Emission Reduction Credit Certificate**

**S-4113-24**

**DRAFT**

ISSUED TO: CHEVRON USA INC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: HEAVY OIL CENTRAL  
KERN COUNTY, CA  
SECTION: 25 TOWNSHIP: 28S RANGE: 27E

**For CO2E Reduction In The Amount Of:**

**36937 metric tons / year**

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

**Shut down of two (S-1131-970 & '973) Solar gas turbines verified as permanent within the State of California**

**Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director / APCO

**DRAFT**

\_\_\_\_\_  
David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

**Emission Reduction Credit Certificate**

**S-4114-24**

**DRAFT**

ISSUED TO: CHEVRON USA INC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: HEAVY OIL CENTRAL  
KERN COUNTY, CA  
SECTION: 25 TOWNSHIP: 28S RANGE: 27E

**For CO<sub>2</sub>E Reduction In The Amount Of:**

**33851 metric tons / year**

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

**Shut down of two (S-1131-974 & '-1073) Solar gas turbines verified as permanent within the State of California**

**Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director /APCO

**DRAFT**  
\_\_\_\_\_  
David Warner, Director of Permit Services