## PUBLIC NOTICE CHECK LIST

PROJECT #: S-43 PROJECT #: S-1122749

REQST. COMPL.

\frac{1}{4}  \frac{1}{4}	ERC PRELIMINARY 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:
<b>4</b> ∠ /	Enter Correct Date, Print All Documents from File and Obtain Director's Signature
1 /	Determine date comment period will end, enter date on Newspaper Notice and Aviso en Español, and Email <i>PRELIMINARY</i> Newspaper Notice for Publication in <u>Bakersfield Californian</u> Pub Date: 2/18 Due Date: 4/17
1 1	Mail/email <i>PRELIMINARY</i> Notice Letter to Applicant (email address: none) with the following attachments: <u>√</u> Application Evaluation <u>√</u> Newspaper Notice
1	Email PRELIMINARY Public Notice package to EPA
<u>√</u> _/	Email PRELIMINARY Public Notice package to CARB
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Email <i>PRELIMINARY</i> 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 orFPNP Name/address:noneNN/AE orFPNP Name/address:none
<u> </u>	Send PRELIMINARY Public Notice package to EDMS Other Special Instructions (please specify):
Tro	eted <u>2/18/13</u> /By <u>Steve Roeder</u> acleur of in leb st-Sene

#### CALIFORNIA NEWSPAPER SERVICE BUREAU

#### DAILY JOURNAL CORPORATION

Mailing Address: 915 E FIRST ST, LOS ANGELES, CA 90012 Telephone (213) 229-5300 / Fax (213) 229-5481 Visit us @ WWW.LEGALADSTORE.COM

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

CNS 2599678

#### COPY OF NOTICE

Notice Type:

**GPN GOVT PUBLIC NOTICE** 

Ad Description

Prelim ERC S-1122749, Asra Energy, 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):

03/18/2014

#### **Daily Journal Corporation**

Serving your legal advertising needs throughout California. Call your local

BUSINESS JOURNAL, RIVERSIDE	(951) 784-0111
DAILY COMMERCE, LOS ANGELES	(213) 229-5300
LOS ANGELES DAILY JOURNAL, LOS ANGELES	(213) 229-5300
ORANGE COUNTY REPORTER, SANTA ANA	(714) 543-2027
SAN DIEGO COMMERCE, SAN DIEGO	(619) 232-3486
SAN FRANCISCO DAILY JOURNAL, SAN FRANCISCO	(800) 640-4829
SAN JOSE POST-RECORD, SAN JOSE	(408) 287-4866
THE DAILY RECORDER, SACRAMENTO	(916) 444-2355
THE INTER-CITY EXPRESS, OAKLAND	(510) 272-4747

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

NOTICE IS HEREBY GIVEN that the San Josquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Aera Energy. LLC for the shutdown of six natural gas corrupressor engines and one oil heater, at the Lost Hills Saction 15P Gas Plant near Lost Hills. CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2dyr.

metric tons CO2a/yr.

The analysis of the regulatory basis for this proposed action, Project #S-1122749, is evaliable for public inspection at http://www.valleyair.org/no.icea/public.notices (dx.ht m and all any District office. For additional information, please contact tha District at (681) 392-5500. Written comments on this project must be submitted by Ani 17, 2014 to DAVIO WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.
3/18/14 GAKERSFIELD CALIFORNIAN



From:

Song Thao

Sent:

Thursday, March 13, 2014 1:58 PM

To: Subject: Gerardo Rios (SJV\_T5\_Permits@epa.gov.); Mike Tollstrup (mtollstr@arb.ca.gov) Preliminary ERC Public Notice for Aera Energy LLC Facility S-43 Project S-1122749

Attachments:

Prelom S-1122749.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 Emission Reduction Credits to Aera Energy, LLC for the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

From:

Microsoft Outlook

To: Sent: Mike Tollstrup (mtollstr@arb.ca.gov) Thursday, March 13, 2014 1:58 PM

Subject:

Relayed: Preliminary ERC Public Notice for Aera Energy LLC Facility S-43 Project

5-1122749

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: Preliminary ERC Public Notice for Aera Energy LLC Facility S-43 Project S-1122749

From: Mail Delivery System <MAILER-DAEMON@mintra12.rtp.epa.gov>

To: SJV\_T5\_Permits@epamail.epa.gov
Sent: Thursday, March 13, 2014 1:58 PM

Subject: Expanded: Preliminary ERC Public Notice for Aera Energy LLC Facility S-43 Project

S-1122749

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

SJV T5 Permits@epamail.epa.gov

Subject: Preliminary ERC Public Notice for Aera Energy LLC Facility S-43 Project S-1122749

From:

Song Thao

Sent:

Thursday, March 13, 2014 1:59 PM

To:

WebTeam

Subject:

valleyair.org update: Preliminary ERC Public Notice for Aera Energy LLC Facility S-43

Project S-1122749

Attachments:

Prelom S-1122749.PDF; Newspaper.PDF; Aviso.PDF

March 13, 2014 (Facility S-43 Project S-1122749) NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Aera Energy, LLC for the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr. The comment period ends on April 17, 2014.

#### Newspaper Notice

<u>Aviso</u>

Public Notice Package

From:

Song Thao

Sent:

Friday, March 14, 2014 1:18 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-1122749** 

The District has posted a new permitting public notice. The public notice can be viewed on our website at: <a href="http://www.valleyair.org/notices/Docs/2014/03-13-14\_(S-1122749)/Newspaper.pdf">http://www.valleyair.org/notices/Docs/2014/03-13-14\_(S-1122749)/Newspaper.pdf</a>

For a list of public notices and public notice packages, please visit our website at: <a href="http://www.valleyair.org/notices/public notices idx.htm#PermittingandEmissionReductionCreditCertificateNotices">http://www.valleyair.org/notices/public notices idx.htm#PermittingandEmissionReductionCreditCertificateNotices</a>

Thank you.

From:

Song Thao

Sent:

Friday, March 14, 2014 1:19 PM

To:

All Spanish (Avisos\_Sobre\_Acciones\_de\_Permisos-Todos@lists02.valleyair.org)

Subject:

Aviso Publico Sobre Acciones de Permisos S-1122749

El Distrito del Aire a publicado un nuevo aviso público de permiso. El aviso público se puede ver en nuestro sitio de web en: <a href="http://www.valleyair.org/notices/Docs/2014/03-13-14">http://www.valleyair.org/notices/Docs/2014/03-13-14</a> (S-1122749)/Aviso.pdf

Para obtener una lista de avisos públicos y paquetes de avisos públicos, por favor visite nuestro sitio de web en: <a href="http://www.valleyair.org/notices/public\_notices\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices">http://www.valleyair.org/notices/public\_notices\_idx.htm#PermittingandEmissionReductionCreditCertificateNotices</a>

#### **Gracias**

# AVISO DE DECISIÓN PRELIMINAR PARA LA PROPUESTA OTORGACIÓN DE CERTIFICADOS 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 Reducción de Emisiones (ERC, por sus siglas en inglés) a Aera Energy, LLC para la clausura de seis motores de gas natural que apoderan compresores, y un calentador de aceite, en the Lost Hills Section 15P Gas Plant near Lost Hills, CA. La cantidad de ERCs propuestas para almacenar es 12,003 toneladas de CO2e/año.

El análisis de la base regulatoria para esta acción propuesta, Proyecto #S-1122749, está disponible para la inspección pública en

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 (661) 392-5500. Comentarios por escrito acerca de este propuesto permiso inicial deben de ser sometidos antes del 17 de Abril 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 Emission Reduction Credits to Aera Energy, LLC for the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

The analysis of the regulatory basis for this proposed action, Project #S-1122749, is available for public inspection at http://www.valleyair.org/notices/public\_notices\_idx.htm and at any District office. For additional information, please contact the District at (661) 392-5500. Written comments on this project must be submitted by April 17, 2014 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.





MAR 1 3 2014

Brent Winn Aera Energy, LLC PO Box 11164 Bakersfield, CA 93389

Notice of Preliminary Decision – Emission Reduction Credits

Facility Number: S-43

Project Number: S-1122749

Dear Mr. Winn:

Enclosed for your review and comment is the District's analysis of Aera Energy, LLC's application for Emission Reduction Credits (ERCs) resulting from the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30day public notice comment period, the District intends to the issue the ERCs. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Steve Roeder of Permit Services at (661) 392-5615.

Sincerely,

David Warner

Director of Permit Services

DW:SR/st

**Enclosures** 

Mike Tollstrup, CARB (w/enclosure) via email CC:

Gerardo C. Rios, EPA (w/enclosure) via email CC:

Seyed Sadredin

**Executive Director/Air Pollution Control Officer** 

## San Joaquin Valley Air Pollution Control District **ERC Application Review** Shutdown of Six Engines and One Oil Heater

Facility Name: Aera Energy, LLC

February 18, 2014

Mailing Address:

PO Box 11164

Engineer: Steve Roeder

Bakersfield, CA 93389

Lead Engineer: Allan Phillips

Contact Person: Brent Winn @ (661) 665-4363

Facility ID: S-43

Project #: S-1122749

Submitted: July 16, 2012

Deemed Complete: July 18, 2012

#### Summary

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

Aera had previously shut down their Lost Hills Section 15 Gas Plant including 6 compressor engines (S-43-4, -5, -6, -7, -8 and -9) and one oil heater (S-43-15). The permits have been surrendered and the equipment has all been sold and removed.

Aera has banked the criteria emission reductions (NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO and VOC) from the shutdown of the engines (ERC Project S-1075362) and the oil heater (ERC Project S-1080067) and has proposed to bank the reductions in greenhouse gasses (GHG) from the shutdowns in this project. See the surrendered permits in Appendix A.

The following emission reductions qualify for banking.

Bankable GHG ERCs (metric tons/year)			
GHG	12,003		

#### II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)

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

#### III. Location of Reduction

The engines and oil heater were located at the Lost Hills Section 15 Gas Plant located in NE Section 15, Township 27S, Range 21E in Lost Hills.

#### IV. Method of Generating Reductions

The method of emission reductions is the permanent shutdown of 6 (three 1,100 hp and three 826 hp) lean burn natural gas-fired IC engines driving Section 15 Gas Plant Compressors (S-43-4 through '-9) and one 5 MMBtu/hr natural gas-fired oil heater (S-43-15).

All permits were surrendered on August 27, 2007, the equipment was sold and removed from site, and no other engines or electric motors are being used to compress the gas. According to the applicant, the Lost Hills Section 15 Gas Plant was shut down due to declining gas production in the fields surrounding the plant.

#### V. Calculations

#### A. Assumptions

- Units of GHG AER is metric tons of CO₂e per year, rounded to the nearest metric ton
- 1.000 kg = 1 metric ton
- 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
- Monthly fuel use records have been provided by the applicant
- Annual emissions are based on fuel usage and the CO₂e emission factor
- The HHV for the engine gas is taken from a field gas analysis as presented in Project S-1075362 and is 1,106 Btu/scf
- The HHV for the oil heater gas is taken from a field gas analysis as presented in Project S-1080067 and is 1,130 Btu/scf

#### **B.** Emission Factors

The CO₂e emission factor is taken from the District's Spreadsheet "ARB – Greenhouse Gas Emission Factors" and is calculated in lb/MMBtu to three significant figures in the following table.

Natural Gas Emission Factors					
Pollutant	kg/MMBtu x	2.205 lb/kg x	GWP =	CO₂e EF	
CO <sub>2</sub>	52.87	2.205	1.00	116.578	lb/MMBtu
CH₄	0.0009	2.205	21.00	0.0417	lb/MMBtu
N₂O	0.0001	2.205	310.0	0.0684	lb/MMBtu
Tota	al CO₂e			117	lb/MMBtu

#### C. Baseline Period Determination

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

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

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

The baseline period for the engines and the oil heater have been previously determined by the District during ERC Projects S-1075362 and S-1080067. The same baseline periods will be used for this project as follows.

#### 1. Engines

The time period from 4th Quarter 2002 through 3rd Quarter 2004 was selected as the baseline period for the engines.

#### 2. Oil Heater

The time period from 1st Quarter 2003 through 4th Quarter 2004 (excluding January 2003) was selected as the baseline period.

#### D. Baseline Data

#### 1. Engine Baseline Data

The baseline fuel-use is taken from the annual fuel-use records that have been supplied by the applicant, as evaluated in ERC projects S-1075362 and S-1080067.

The monthly fuel-use for each engine is combined into total fuel-use for all-engines-combined in Appendix B.

The fuel use is combined into two-year monthly totals, then divided into the single-year monthly average, and finally the grand annual average fuel-use in the following table.

Monthly Baseline Fuel-Use in 1,000 SCF					
Month	2002	2003	2004	Monthly	Monthly
Jan		16,944	13,636	30,580	15,290
Feb		15,122	13,342	28,464	14,232
Mar		16,500	13,539	30,039	15,020
Apr		14,729	11,932	26,661	13,331
May		16,630	7,477	24,107	12,054
Jun		15,631	7,791	23,422	11,711
Jul		15,626	9,174	24,800	12,400
Aug		16,089	9,396	25,485	12,743
Sep		15,280	8,536	23,816	11,908
Oct	16,336	17,148		33,484	16,742
Nov	15,550	16,713		32,263	16,132
Dec	16,207	16,217		32,424	16,212
Grand Annual Average Fuel Use				167,775	

## 2. Oil Heater Baseline Data

The monthly oil heater fuel-use data is taken from project S-1080067 and is combined into an annual average total in the following table.

Monthly Baseline Fuel-Use in 1,000 SCF				
Month	2003	2004	Monthly Total	Monthly Average
Jan	3,188	3,253	6,441	3,221
Feb	2,794	3,148	5,942	2,971
Mar	3,032	3,197	6,229	3,115
Apr	2,759	3,159	5,918	2,959
May	3,136	3,115	6,251	3,126
Jun	2,742	2,614	5,356	2,678
Jul	2,651	3,000	5,651	2,826
Aug	2,756	3,124	5,880	2,940
Sep	2,615	3,083	5,698	2,849
Oct	2,725	3,188	5,913	2,957
Nov	2,833	3,420	6,253	3,127
Dec	2,971	3,371	6,342	3,171
Gra	Grand Annual Average Fuel Use			35,940

#### E. Historical Actual Emissions (HAE)

#### 1. Engines

The GHG HAE for the engines are determined by multiplying the annual fuel-use by the emission factor presented above, and is expressed in metric tons per year.

$$HAE = \frac{167,775\,Mscf}{yr}x\frac{1,106\,Btu}{scf}x\frac{117\,lb\cdot CO_2e}{MMBtu}x\frac{1\,metrlc\,ton}{2,204.6\,lb} = 9,848\frac{metrlc\,tons}{year}$$

#### 2. Oil Heater

$$HAE = \frac{35,940 \ Mscf}{yr} x \frac{1,130 \ Btu}{scf} x \frac{117 \ lb \cdot CO_2e}{MMBtu} x \frac{1 \ metric \ ton}{2,204.6 \ lb} = 2,155 \frac{metric \ tons}{year}$$

#### 3. Total

Total HAE for CO2e is:

Total HAE for CO₂e (Metric Tons per Year)		
Engines	9,848	
Oil Heater	2,155	
Total 12,003		

### VI. Compliance

## Rule 2201 - New and Modified Stationary Source Review Rule

The applicant has proposed to bank ERCs for GHG. Rule 2201 provides requirements for banking the criteria pollutants, which has already been done in ERC projects S-1075362 and S-1080067. There are no additional applicable requirements from Rule 2201.

## Rule 2301 - Emission Reduction Credit Banking

Regarding GHG, the purpose of this Rule is to:

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

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

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

The emission reductions occurred when all permits were surrendered in 2007, the equipment was sold and removed from site, and no other engines or electric motors are being used to compress the gas. Therefore, this criteria has been satisfied.

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

The emissions occurred at the Lost Hills Section 15 Gas Plant located in NE Section 15, Township 27S, Range 21E in Lost Hills. Since this location is within the District, this criteria has been satisfied.

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

#### Real:

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

#### Surplus:

Since the GHG emission reductions occurred in 2007, they were not subject to any Cap and Trade regulations on or after January 1, 2012. Therefore, the GHG emission reductions are surplus and satisfy the requirements of Section 4.5.3.1.

There are no laws, rules, regulations, agreements, orders, or permits requiring any GHG emission reductions from cotton gins. Therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.2.

Since the GHG emission reductions are not the result of an action taken by the permittee to comply with any requirement, the GHG emission reductions are surplus, additional of all requirements, and satisfy the surplus requirement in section 4.5.3.4.

#### Permanent:

AERA has ceased operation of the 6 IC engines and the hot oil heater and surrendered the permits. The equipment has been dismantled and removed from the facility, and there are no other engines or electric motors connected to compress any remaining gas. Since no emissions have been shifted, the reductions are permanent.

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

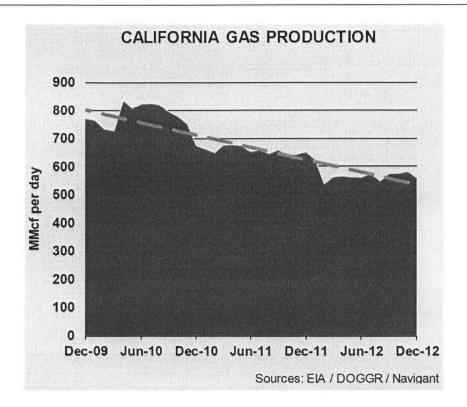
While Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements regulating the use of GHG ERCs. However, it is anticipated that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the CEQA process.

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 projects GHG emission increase.

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

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

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



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

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

The ERC Certificate will include the following identifier:

"Shutdown of engines and oil heater verified as permanent within the State of California"

#### Quantifiable:

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

#### Enforceable:

The engines and oil heater have been shut down and the PTOs have been surrendered to the District. Operation of the equipment without a valid permit would subject the permittee to enforcement action. Therefore, the emission reductions are enforceable.

**Section 4.5.4** requires that GHG emission reductions be calculated as the difference between the historic annual average GHG emissions (as CO<sub>2</sub>e) and the PE2 after the reduction is complete. The historical GHG emissions must be calculated using the consecutive 24 month period immediately prior to the date the emission reductions occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations.

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

**Section 4.5.5.5** requires that GHG emission reductions proposed to be quantified using CARB-approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

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

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

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

**Section 5** identifies ERC Certificate application procedures.

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

The ERC application was submitted on 7/16/12, therefore the application is timely.

Section 6.15 specifies the registration requirements for GHG ERCs.

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

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

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

#### VII. Recommendation

Issue the ERC Certificate in the amounts posted in the table below and on the attached Draft ERC Certificate.

Bankable GHG ERCs (metric tons/year)			
GHG	12,003		

## **List of Appendixes**

- A. Surrendered Permits to Operate B. Baseline Engine Fuel Use Chart
- C. Draft ERC Certificate

## Appendix A Surrendered Permits to Operate

## San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-4-15** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #1 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-5 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2C), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

## PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120.
   [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable. [District Rule 4403] Federally Enforceable Through Title V Permit
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.
  [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rule 4701 and 4702] 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: AERA ENERGY LLC Location: LOST HILLS GAS PLANT, NE 16, T.27S, R.21E., M.D.B.& M., LOST HILLS, CA 6434-16: Nev 16 2005 1-9294 - Arysey

- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
- 35. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)] Federally Enforceable Through Title V Permit
- 36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
- 37. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403] Federally Enforceable Through Title V Permit
- 38. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

## San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-5-14** 

EXPIRATION DATE: 08/31/2009

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #2 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-4 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2B), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

## PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit.
  [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 120 4701, and 4702]
- 7: Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 9. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill I treating facility served by vapor collection and control system S-1548-120.

  [District NSR Rule]
- Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable.
   [District Rule 4403]
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.
  [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv@ 15% O2 and 87.1 lb/day. [District NSR Rule]

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

Facility Name: AERA ENERGY LLC Location: LOST HILLS GAS PLANT,NE 15, T.27S, R.21E., M.D.B.& M.,LOST HILLS, CA 8-48-41: 1911 11 2071 1:000M - KEASTAUD

::

110

ના

. (19)

- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2080]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]

 $\frac{1}{2}$ 

7. 3. 80

(1)

; :: ; :

- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]
- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District Rule 4702]
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]

## San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-6-14** 

EXPIRATION DATE: 08/31/2009

in

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #3 INCLUDING SUPERIOR NATURAL GAS IC ENGINE AND SHARING WITH PERMIT UNIT S-43-4 AND '-5 INLET SCRUBBERS (V28/V29), COMPRESSOR (C-2A), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

## PERMIT UNIT REQUIREMENTS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201]:09
  4701, and 4702]
- 7.. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dsof as H2S. [District NSR Rule]
- Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120.
   [District NSR Rule]
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable.

  [District Rule 4403]
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.

  [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule]

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

Facility Name: AERA ENERGY LLC Location: LOST HILLS GAS PLANTINE 15, T.275, R.21E., M.D.B.& M., LOST HILLS, CA 949-141-149 31 2001 1999-4 NEASTING

- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule]
- Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15
  consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2080]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed
- during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]

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

Facility Name: AERA ENERGY LLC Location: LOST HILLS GAS PLANT, NE 15, T.278, R.21E., M.O.B.& M., LOST HILLS, CA **F** 

so a

- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In the lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]
- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]

1. s.

## San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-7-11** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #4 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/PERMIT UNITS S-43-8 & '-9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1C), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

## PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit.
  [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- 7. This engine shall not be operated after June 1, 2007 for any reason without an ATC including the Rule 4702 emissions limits and any necessary retrofits needed to comply with the applicable requirements of District Rule 4702. [District Rule 4702]
- 8. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 13. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 14. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. SO2 emission rate shall not exceed 0.01 lb/hr. [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: AERA ENERGY LLC
Location: LOST HILLS GAS PLANT, NE 15, T, 27S, R, 21E., M.D.B.& M., LOST HILLS, CA
9-43-7-11:New 10 2005 1:87PN - AYABEU

- 16. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rule 4701] Federally Enforceable Through Title V Permit
- 17. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 23. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 30. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 31. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 33. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 35. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

LOCATION: LOST HILLS GAS PLANT, NE 15, T.275, R.21E., M.D.B.& M., LOST HILLS, CA

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-8-11** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #5 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/PERMIT UNITS S-43-7 AND '-9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1B), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

## PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rules 4701 and 4702] 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: AERA ENERGY LLC Location: LOST HILLS GAS PLANT, NE 15, T.27S, R.21E., M.D.B.& M., LOST HILLS, CA \$43-411: http://docs.1127ph.47VABEU.

- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15
  consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)]
  Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-9-11** 

EXPIRATION DATE: 08/31/2009

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #6 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED WITH PERMIT UNITS S-43-7 AND '-8 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9). COMPRESSOR (C-1A), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

# PERMIT UNIT REQUIREMENTS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rules 4701 and 4702] 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: AERA ENERGY LLC

LOCATION: LOST HILLS GAS PLANT, NE 15, T.278, R.21E., M.D.B.& M., LOST HILLS, CA 543-6 11; Nov 10 2005 1:51PM - ALYABELI

- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: S-43-15-8** 

EXPIRATION DATE: 08/31/2009

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

DORMANT: 5 MMBTU/HR NATURAL GAS-FIRED HOT OIL HEATER

# PERMIT UNIT REQUIREMENTS

- 1. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- Operator shall provide written notification to the District 7 days prior to performing dormancy procedures on active systems or sections, and prior to recommencing operation of dormant systems or sections. [District Rule 2080]
   Federally Enforceable Through Title V Permit
- 3. Permittee shall not be required to perform source testing, fuel sulfur content certification, monitoring, inspections, or record keeping (except to document non-operation). [District Rule 2080] Federally Enforceable Through Title V Permit
- 4. Particulate matter emissions shall not exceed 0.1 grain/dsef, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
- 5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Emission rates shall not exceed any of the following: NOx (as NO2): 0.10 lb/MMBtu, or CO: 112 ppmvd @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Excess combustion air shall be maintained at no less than 10% unless continuous operation analyzer/controller is utilized. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. The pressure regulator shall be set such that the heater's natural gas supply is limited to 5.0 MMBtu/hr. [District Rules 2201, 4305, 2.0 and 4306, 2.0] Federally Enforceable Through Title V Permit
- 9. The pressure regulator's adjusting screw(s) shall be fixed with wire seals. [District Rule] Federally Enforceable Through Title V Permit
- 10. Heater shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
- 12. Upon recommencing operation, fuel sulfur content and higher heating value shall be certified by a third party fuel supplier or each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2080 and 2520, 9.3.2] 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.

Facility Name: AERA ENERGY LLC Location: LOST HILLS GAS PLANT, NE 15, T.27S, R.21E., M.D.B.& M., LOST HILLS, CA

- 13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 14. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 15. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 16. The operator shall maintain all records of required monitoring data and support information for inspection at any time.

  [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# Appendix B Baseline Engine Fuel-Use Chart

The engine fuel-use data is taken from ERC Project S-1075362. The fuel-use for each month for each engine is combined into monthly totals for all-engines-combined in the following table.

	Jan 03	Jan 04	Feb 03	Feb 04	Mar 03	Mar 04	Apr 03	Apr 04	May 03	May 04	Jun 03	Jun 04	Jul 03	Jul 04	Aug 03	Aug 04	Sep 03	Sep 04	Oct 02	Oct 03	Nov 02	Nov 03	Dec 02	Dec 03
S-43-4	1,232	4,416	680	4,374	4,417	4,500	1,635	3,123	2,048	1,306	690	672	2,105	865	2,403	0	4,041	0	2,119	4,446	2,949	4,568	4,244	4,383
S-43-5	4,538	4,378	3,934	4,425	3,050	4,744	3,932	3,867	4,205	2,041	3,232	14	2,037	1,351	1,873	77	2,913	359	3,396	4,508	3,920	4,574	2,089	4,122
5-43-6	3,305	159	3,686	45	1,373	0	2,421	1,110	2,711	19	4,547	3,041	4,324	2,481	4,334	4,589	1,239	3,851	3,390	250	1,446	0	2,437	606
S-43-7	2,011	3,011	3,472	2,352	3,773	273	2,638	1,729	3,846	922	398	426	1,640	19	1,427	13	1,892	31	3,721	2,265	1,568	3,723	187	1,013
S-43-8	1,683	1,672	0	2,112	2,659	4,022	3,376	2,103	3,820	3,189	3,573	1,735	2,715	1,255	3,755	3,001	3,449	1,164	2,953	3,916	2,029	3,848	3,505	3,989
S-43-9	4,175	0	3,350	34	1,228	0	727	0	0	0	3.191	1.903	2.805	3,203	2.297	1.716	1.746	3.131	757	1.763	3,638	0	3.745	2.104
Monthly Total	16,944	13,636	15,122	13,342	16,500	13,539	14,729	11,932	16,630	7,477	15.631	7.791	15,626	9.174	16.089	9,396	15.280	8.536	16.336	17,148	15.550	16.713	16,207	16,217

# Appendix C Draft ERC Certificate

# San Joaquin Valley Air Pollution Control District

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

# Emission Reduction Credit Certificate

ISSUED TO:

**AERA ENERGY LLC** 

**ISSUED DATE:** 

<DRAFT>

LOCATION OF REDUCTION:

LOST HILLS GAS PLANT

NE S15, T27S, R21E., M.D.B.& M.

LOST HILLS, CA

# For CO2E Reduction In The Amount Of:

12003 metric tons / year

[ ] Conditions Attache	d
------------------------	---

#### **Method Of Reduction**

[X] Shutdown of Entire Stationary Source

[ ] Shutdown of Emissions Units

[ ] Other

Shutdown of engines and oil heater 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

# 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 Emission Reduction Credits to Aera Energy, LLC for the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

The analysis of the regulatory basis for this proposed action, Project #S-1122749, is available for public inspection at http://www.valleyair.org/notices/public\_notices\_idx.htm and at any District office. For additional information, please contact the District at (661) 392-5500. Written comments on this project must be submitted by April 17, 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 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 Reducción de Emisiones (ERC, por sus siglas en inglés) a Aera Energy, LLC para la clausura de seis motores de gas natural que apoderan compresores, y un calentador de aceite, en the Lost Hills Section 15P Gas Plant near Lost Hills, CA. La cantidad de ERCs propuestas para almacenar es 12,003 toneladas de CO2e/año.

El análisis de la base regulatoria para esta acción propuesta, Proyecto #S-1122749, está disponible para la inspección pública en 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 (661) 392-5500. Comentarios por escrito acerca de este propuesto permiso inicial deben de ser sometidos antes del 17 de Abril 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 Emission Reduction Credits to Aera Energy, LLC for the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

The analysis of the regulatory basis for this proposed action, Project #S-1122749, is available for public inspection at http://www.valleyair.org/notices/public\_notices\_idx.htm and at any District office. For additional information, please contact the District at (661) 392-5500. Written comments on this project must be submitted by April 17, 2014 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.

# PROOF OF PUBLICATION

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

CAL NEWSPAPER SERVICE PO BOX 60460 LOS ANGELES, CA 90060

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: 3/18/14

ALL IN YEAR 2014

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

Monta

DATED AT BAKERSFIELD CALIFORNIA

Printed on 3/18/2014 at 12:57:57PM

Ad Number: 13464504

Edition:

TBC

PO#: 2599678

Run Times

1

Class Code Legal Notices

Start Date

3/18/2014

Stop Date 3/18/2014

Billing Lines

Inches

**Total Cost** 

Account 1CAL07A

Billing

Address

CAL NEWSPAPER SERVICE

PO BOX 60460

LOS ANGELES, CA

900 RECEIVED

MAR 25 2014

Solicitor I.D.:

0

SJVUAPCD

First Text

NOTICE OF PRELIMINARY DECISION FOR THE P

Ad Number 13464504

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

NOTICE IS HEREBY GIVEN that the Sau Joaquin Valley Unified Air Pollution Control District solicits compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs proposed for banking is 12,003 metric tons CO2e/yr.

regulatory basis for this proposed action, Projec #S-1122749, is availal please contact the District at (661) 392-5500. Written consuments on this project must be substitted by April 17, 2014 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNLIFED AIR POLIUTION CONTROL DISTRICT, 34946 FLYOVER COURT, RAKKERSPIELD, CA 93308

. 3/18/14 CNS-2599678#

March 18, 2014 13464504



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	A. Signature  Agent  Agent  Addressee  B. Received by (Printed Name)  C. Date of Delivery
Article Addressed to:	D. Is delivery and pass different from them 1 Pes  If Yes, a fer delivery address below: D No
BRENT WINN AERA ENERGY, LLC	APR 0 6 2015
PO BOX 11164 BAKERSFIELD, CA 93389	3. Service Type SJVAPCD  ☐ Certified Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ Collect on Delivery
	4. Restricted Delivery? (Extra Fee)
2. Article Number 7013 0600	0001 4793 6993
PS Form 3811, July 2013 Domestic Retu	ım Receipt

5-43, 5-112,2749 C2543769 \$93.92

S. Roeder

PROOF OF PUBLICATION

Mnal ERC

RECEIVED

APR 2 2 2015

Permits Services

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

CAL NEWSPAPER SERVICE PO BOX 60460 LUS ANGELES, CA 90060

Ad Number: 13826565 Edition: TBC

Legal Notices

Class Code

Start Date 432015 Stop Date 4:3/2015

PO #: 2735828JVAPCD

Billing Lines

Inches

Run Times

Total Cost

Account ICAL07A

Billing

CAL NEWSPAPER SERVICE

Address PO BOX 60460

LOS ANGELES, CA

90060

STATE OF CALIFORNIA COUNTY OF KERN

LAM 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: 4/3/15

ALL IN YEAR 2015

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

DATED AT BAKERSFIELD CALIFORNIA

Printed on 4/6/2015 at 9:15:20AM

Solicitor LD.:

Ü

First Text NOTICE OF FINAL ACTION FOR THE ISSUANCE

Ad Number 13826565

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 Gredits (RRCs) to Area Energy, LLC for emission reduction generated by the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 159 Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr. NOTICE IS HEREBY GIVEN

All comments received following the District's preliminary decision on this project were considered.

project were considered.
The application review for project #8-11-22749 is available for public inspection at http://www.vaileyair.org/mitics/public\_notices\_tak.htm, the SAN JOAQUIN VAILEY UNIFIED AIR POLILITION CONTROL DISTRICT, 34946 PLYOYER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please confact the District at (66 I) 392-5500, 473/15 CNS-2735829# THE BAKERSFIELD CALIFORNIAN CALIFORNIAN

(13826565)



# PUBLIC NOTICE CHECK LIST

PROJECT #: <u>S-43</u> PROJECT #: <u>S-1122749</u>

REGST. COMPL.  V V V V V V V V V V V V V V V V V V	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 <i>FINAL</i> Newspaper Notice for Publication in <u>Bakersfield Californian</u> Pub Date: 4/3/3016
<b>√</b>	Mail <i>FINAL</i> Notice Letter to Applicant by <b>Certified Mail</b> including the following attachments: <u>√</u> Original ERC Certificates <u>√</u> Newspaper Notice
¥ Z/	Email FINAL Public Notice package to EPA Email FINAL Public Notice package to CARB
₹ <b>1</b> /	Email FINAL Newspaper Notice, Aviso en Español and Public Notice package to "webmaster" Webt came Valleymv. org
X	After posted on website, send email with weblink of Newspaper notice, Aviso en Español, and full public notice package to:
	<ul> <li>✓ specific [C, S, or N] region and District wide permitting notification list serves (both English and Spanish list serves)</li> <li>✓ facility specific distribution list, (AQE – enter email address from PAS facility details notifications tab, if none enter NONE below):</li> <li>None</li> </ul>
7 N	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 orFPNP Name/address:[names]
<u> </u>	☐NN/AE or ☐FPNP Name/address:[names] Send FINAL Public Notice package to EDMS Assign Mailing Date Other Special Instructions (please specify):
Date Comple	eted 3/24/15/By Steve Roeder

3 693	(Domestic Mail ©	MAILm REC nly: No insurence C nlonvisit curvebsite	coverage Provided), his alvovovousps (com	
1000_ns	Postage  Certified Fee  Return Receipt Fee (Endorsement Required)  Restricted Delivery Fee (Endorsement Required)	\$	Postmark Here	
309U-E102	AERA Street, Apt. No. PO Bo	RSFIELD, CA 9	3389	

#### CALIFORNIA NEWSPAPER SERVICE BUREAU

#### DAILY JOURNAL CORPORATION

Malling Address: 915 E FIRST ST, LOS ANGELES, CA 90012 Telephone (213) 229-5300 / Fax (213) 229-5481 Visit us @ WWW.LEGALADSTORE.COM

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

CNS 2735829

#### **COPY OF NOTICE**

Notice Type:

**GPN GOVT PUBLIC NOTICE** 

**Ad Description** 

ERC FINAL PUBLIC NOTICE, AERA ENERGY, LLC;

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):

04/03/2015

#### **Daily Journal Corporation**

Serving your legal advertising needs throughout California. Call your local

BUSINESS JOURNAL, RIVERSIDE	(951) 784-0111
DAILY COMMERCE, LOS ANGELES	(213) 229-5300
LOS ANGELES DAILY JOURNAL, LOS ANGELES	(213) 229-5300
ORANGE COUNTY REPORTER, SANTA ANA	(714) 543-2027
SAN DIEGO COMMERCE, SAN DIEGO	(619) 232-3486
SAN FRANCISCO DAILY JOURNAL, SAN FRANCISCO	(800) 640-4829
SAN JOSE POST-RECORD, SAN JOSE	(408) 287-4866
THE DAILY RECORDER, SACRAMENTO	(916) 444-2355
THE INTER-CITY EXPRESS, OAKLAND	(510) 272-4747

NOTICE OF FINAL ACTION FOR THE ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has lasued Emission Reduction Credits (ERCe) to Aera Energy, LLC for emission reduction reduction reduction by the shutdown of six natural ass compressor engines gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr.

please contact the District at (661) 392-5500. CNS-2735829# THE BAKERSFIELD CALIFORNIAN



From:

Yolanda Alvarez

Sent:

Tuesday, March 31, 2015 2:55 PM

To:

Gerardo Rios EPA (SJV\_T5\_Permits@epa.gov); Mike Tollstrup (mtollstr@arb.ca.gov)

Subject:

ERC Final Public Notice for Aera Energy, LLC; Facility: S-43, Project# S-1122749

**Attachments:** 

Final S-1122749.pdf; Newspaper.pdf

Importance:

High

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy, LLC for emission reduction generated by the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr.

# \*Yolanda R. Alvarez\*

\*Office Assistant II\*
San Joaquín Valley APCD
1990 E. Gettysburg Ave
Fresno, CA 93726

yolanda.alvarez@valleyair.org Service \* Teamwork \* Attitude \* Respect

From:

Microsoft Outlook

To:

Gerardo Rios EPA (SJV\_T5\_Permits@epa.gov)

Sent:

Tuesday, March 31, 2015 2:55 PM

Subject:

Relayed: ERC Final Public Notice for Aera Energy, LLC; Facility: S-43, Project# S-1122749

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

Gerardo Rios EPA (<u>SJV T5 Permits@epa.gov</u>) (<u>SJV T5 Permits@epa.gov</u>) <a href="mailto:SJV T5 Permits@epa.gov">mailto:SJV T5 Permits@epa.gov</a>)

Subject: ERC Final Public Notice for Aera Energy, LLC; Facility: S-43, Project# S-1122749

From:

Yolanda Alvarez

Sent:

Tuesday, March 31, 2015 2:59 PM

To:

WebTeam

Subject:

valleyair.org update: ERC Final Public Notice for Aera Energy, LLC; Facility: S-43, Project#

S-1122749

Attachments:

Final S-1122749.pdf; Newspaper.pdf; Aviso.pdf

March 31, 2015 (Facility S-43 Project S-1122749) NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy, LLC for emission reduction generated by the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr.

## Newspaper Notice

**Aviso** 

## Public Notice Package

# \*Yolanda R. Alvarez\*

\*Office Assistant II\*
San Joaquín Valley APCD
1990 E. Gettysburg Ave
Fresno, CA 93726
yolanda.alvarez@valleyair.org
Service\*Teamwork\*Attitude\*Respect

# 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 Aera Energy, LLC por la reducción de emisiones generadas por la clausura de seis motores de gas natural que apoderan compresores, y un calentador de aceite, en the Lost Hills Section 15P Gas Plant near Lost Hills, CA. La cantidad de ERCs que serán otorgados son 12,003 toneladas metricas de CO2e/año.

Todos los comentarios que se recibieron siguiendo la decisión preliminar en este proyecto fueron considerados.

La revisión de la solicitud del Proyecto #S-1122749 está disponible para la inspección del público en http://www.valleyair.org/notices/public\_notices\_idx.htm, en 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 Aera Energy, LLC for emission reduction generated by the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr.

All comments received following the District's preliminary decision on this project were considered.

The application review for Project #S-1122749 is available for public inspection at 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.

From:

notices of permitting actions-southern\_region@lists.valleyair.org

Sent:

Wednesday, April 1, 2015 2:14 PM

To:

Yolanda Alvarez

Subject:

Public Notice on Permitting Action S-1122749

**Attachments:** 

ATT00001.txt

The District has posted a new permitting public notice. The public notice can be viewed on our website at: <a href="http://www.valleyair.org/notices/Docs/2015/03-31-15">http://www.valleyair.org/notices/Docs/2015/03-31-15</a> (S-1122749)/Newspaper.pdf

For a list of public notices and public notice packages, please visit our website at: <a href="http://www.valleyair.org/notices/public notices idx.htm#PermittingandEmissionReductionCreditCertificateNotices">http://www.valleyair.org/notices/public notices idx.htm#PermittingandEmissionReductionCreditCertificateNotices</a>

Thank you,

# \*Yolanda R. Alvarez\*

\*Office Assistant II\* San Joaquín Valley APCD 1990 E. Gettysburg Ave Fresno, CA 93726

yolanda.alvarez@valleyair.org Service\*Teamwork\*Attitude\*Respect

From:

avisos\_sobre\_acciones\_de\_permisos-todos@lists02.valleyair.org

Sent:

Wednesday, April 1, 2015 2:16 PM

To:

Yolanda Alvarez

Subject:

Aviso Publico Sobre Acciones de Permisos S-1122749

**Attachments:** 

ATT00001.txt

El Distrito del Aire a publicado un nuevo aviso público de permiso. El aviso público se puede ver en nuestro sitio de web en: <a href="http://www.valleyair.org/notices/Docs/2015/03-31-15">http://www.valleyair.org/notices/Docs/2015/03-31-15</a> (S-1122749)/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

Gracias,

# \*Yolanda R. Alvarez\*

\*Office Assistant II \*
San Joaquín Valley APCD
1990 E. Gettysburg Ave
Fresno, CA 93726
yolanda.alvarez@valleyair.org
Service\*Teamwork\*Attitude\*Respect





MAR 3 1 2015

**Brent Winn** Aera Energy, LLC PO Box 11164 Bakersfield, CA 93389

RE: Notice of Final Action – Emission Reduction Credits

Facility Number: S-43

**Project Number: S-1122749** 

Dear Mr. Winn:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy, LLC for emission reduction generated by the shutdown of six natural gas compressor engines and one oil heater, at the Lost Hills Section 15P Gas Plant near Lost Hills, CA. The quantity of ERCs to be issued is 12,003 metric tons of CO2e/yr.

Enclosed are copies of 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 3/18/14. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on 3/13/14. All comments received following the District's preliminary decision on this project were considered. A summary of the comments received and District responses is attached.

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

Sincerely,

Arhaud Mariollet

Director of Permit Services

AM:SAR/ya **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** 





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

# Emission Reduction Credit Certificate S-4212-24

**ISSUED TO:** 

**AERA ENERGY LLC** 

**ISSUED DATE:** 

March 24, 2015

**LOCATION OF** 

**LOST HILLS GAS PLANT** 

**REDUCTION:** 

NE S15, T27S, R21E., M.D.B.& M.

LOST HILLS, CA

# For CO2E Reduction In The Amount Of:

12,003 metric tons / year

Г	1	<b>Conditions</b>	Attached
L	J	Conditions	Attacheu

### **Method Of Reduction**

[X] Shutdown of Entire Stationary Source

[ ] Shutdown of Emissions Units

[ ] Other

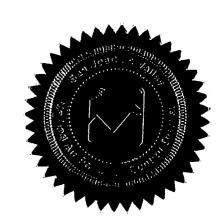
Shutdown of engines and oil heater verified as permanent within the State of California

# **Emission Reduction Qualification Criteria**

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services



Mr. Brent Winn Attachment

The following two comments were received from the Center for Biological Diversity.

#### Comment 1:

The GHG [greenhouse gas] emission reduction does not meet the fiscal additionality test in the CAPCOA [California Air Pollution Control Officers Association] GHG Rx protocol. Therefore, this emission reduction cannot be listed in the CAPCOA GHG Rx.

### **District's Response:**

The proposed GHG ERC will not be listed in the CAPCOA GHG Rx at this time.

#### Comment 2:

The GHG ERC application review should not suggest that the banked GHG ERCs could be used as mitigation for CEQA. Banked emission reductions that are the result of a facility shutdown are not allowable for use as mitigation in CEQA.

#### **District's Response:**

CEQA guidelines section 15126.4(c)(3) specifically mentions "Off-site measures, including offsets that are not otherwise required, to mitigate a projects emissions" as a feasible means to mitigate GHG emissions. As such, the use of GHG offsets are allowed to be used as mitigation in CEQA. However, please note that the lead agency is ultimately responsible evaluating the project's environmental impacts and for determining the adequacy of all mitigation measures to minimize such impacts.

# San Joaquin Valley Air Pollution Control District **ERC Application Review** Shutdown of Six Engines and One Oil Heater

Facility Name: Aera Energy, LLC

Date: February 18, 2014

KWK

2-25-14

Mailing Address: PO Box 11164

Engineer: Steve Roeder

Bakersfield, CA 93389

Lead Engineer: Allan Phillips

Contact Person: Brent Winn @ (661) 665-4363

Facility ID: S-43

Project #: S-1122749

Submitted: July 16, 2012

Deemed Complete: July 18, 2012

### I. Summary

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

Aera had previously shut down their Lost Hills Section 15 Gas Plant including 6 compressor engines (S-43-4, -5, -6, -7, -8 and -9) and one oil heater (S-43-15). The permits have been surrendered and the equipment has all been sold and removed.

Aera has banked the criteria emission reductions (NOx, SOx, PM10, CO and VOC) from the shutdown of the engines (ERC Project S-1075362) and the oil heater (ERC Project S-1080067) and has proposed to bank the reductions in greenhouse gasses (GHG) from the shutdowns in this project. See the surrendered permits in Appendix A.

The following emission reductions qualify for banking.

Bankable GHG	ERGs (metric tons/year)
GHG	12,003

# II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)

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

#### III. Location of Reduction

The engines and oil heater were located at the Lost Hills Section 15 Gas Plant located in NE Section 15, Township 27S, Range 21E in Lost Hills.

### IV. Method of Generating Reductions

The method of emission reductions is the permanent shutdown of 6 (three 1,100 hp and three 826 hp) lean burn natural gas-fired IC engines driving Section 15 Gas Plant Compressors (S-43-4 through '-9) and one 5 MMBtu/hr natural gas-fired oil heater (S-43-15).

All permits were surrendered on August 27, 2007, the equipment was sold and removed from site, and no other engines or electric motors are being used to compress the gas. According to the applicant, the Lost Hills Section 15 Gas Plant was shut down due to declining gas production in the fields surrounding the plant.

#### V. Calculations

#### A. Assumptions

- Units of GHG AER is metric tons of CO2e per year, rounded to the nearest metric ton
- 1,000 kg = 1 metric ton
- 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
- Monthly fuel use records have been provided by the applicant
- Annual emissions are based on fuel usage and the CO2e emission factor
- The HHV for the engine gas is taken from a field gas analysis as presented in Project S-1075362 and is 1,106 Btu/scf
- The HHV for the oil heater gas is taken from a field gas analysis as presented in Project S-1080067 and is 1,130 Btu/scf

#### **B.** Emission Factors

The CO₂e emission factor is taken from the District's Spreadsheet "ARB – Greenhouse Gas Emission Factors" and is calculated in lb/MMBtu to three significant figures in the following table.

	Natural Gas Emission Factors						
Pollutant	kg/MMBtu x	2.205 lb/kg x	GWP =	CO₂e EF			
CO <sub>2</sub>	52,87	2,205	1.00	116.578	lb/MMBtu		
CH₄	0.0009	2,205	21.00	0.0417	lb/MMBtu		
N <sub>2</sub> O	0.0001	2.205	310.0	0.0684	lb/MMBtu		
Tota	al CO₂e			117	lb/MMBtu		

#### C. Baseline Period Determination

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

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

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

The baseline period for the engines and the oil heater have been previously determined by the District during ERC Projects S-1075362 and S-1080067. The same baseline periods will be used for this project as follows.

#### 1. Engines

The time period from 4th Quarter 2002 through 3rd Quarter 2004 was selected as the baseline period for the engines.

#### 2. Oil Heater

The time period from 1st Quarter 2003 through 4th Quarter 2004 (excluding January 2003) was selected as the baseline period.

#### D. Baseline Data

### 1. Engine Baseline Data

The baseline fuel-use is taken from the annual fuel-use records that have been supplied by the applicant, as evaluated in ERC projects S-1075362 and S-1080067.

The monthly fuel-use for each engine is combined into total fuel-use for all-engines-combined in Appendix B.

The fuel use is combined into two-year monthly totals, then divided into the single-year monthly average, and finally the grand annual average fuel-use in the following table.

	Month	y Baseline	Fuel-Use in 1,	000 SCF	
Month	2002	2003	2004	Monthly	Monthly
Jan		16,944	13,636	30,580	15,290
Feb		15,122	13,342	28,464	14,232
Mar		16,500	13,539	30,039	15,020
Apr		14,729	11,932	26,661	13,331
May		16,630	7,477	24,107	12,054
Jun		15,631	7,791	23,422	11,711
Jul		15,626	9,174	24,800	12,400
Aug		16,089	9,396	25,485	12,743
Sep		15,280	8,536	23,816	11,908
Oct	16,336	17,148		33,484	16,742
Nov	15,550	16,713		32,263	16,132
Dec	16,207	16,217		32,424	16,212
	Grand An	nual Avera	ge Fuel Use		167,775

# 2. Oil Heater Baseline Data

The monthly oil heater fuel-use data is taken from project S-1080067 and is combined into an annual average total in the following table.

	Monthly Ba	seline Fuel	-Use in 1,000 S	SCF 1
Month	2003	2004	Monthly Total	Monthly Average
Jan	3,188	3,253	6,441	3,221
Feb	2,794	3,148	5,942	2,971
Mar	3,032	3,197	6,229	3,115
Apr	2,759	3,159	5,918	2,959
May	3,136	3,115	6,251	3,126
Jun	2,742	2,614	5,356	2,678
Jul	2,651	3,000	5,651	2,826
Aug	2,756	3,124	5,880	2,940
Sep	2,615	3,083	5,698	2,849
Oct	2,725	3,188	5,913	2,957
Nov	2,833	3,420	6,253	3,127
Dec	2,971	3,371	6,342	3,171
Gra	ind Annual A	verage Fue	Use	35,940

### E. Historical Actual Emissions (HAE)

#### 1. Engines

The GHG HAE for the engines are determined by multiplying the annual fuel-use by the emission factor presented above, and is expressed in metric tons per year.

$$HAE = \frac{167,775\,Mscf}{yr}x\frac{1,106\,Btu}{scf}x\frac{117\,lb\cdot CO_2e}{MMBtu}x\frac{1\,metric\,ton}{2,204.6\,lb} = 9,848\frac{metric\,tons}{year}$$

#### 2. Oil Heater

$$HAE = \frac{35,940 \ Mscf}{yr} x \frac{1,130 \ Btu}{scf} x \frac{117 \ lb \cdot CO_2 e}{MMBtu} x \frac{1 \ metric \ ton}{2,204.6 \ lb} = 2,155 \frac{metric \ tons}{year}$$

#### 3. Total

Total HAE for CO2e is:

Total HAE for CO₂e (Metric Tons per Year)					
Engines	9,848				
Oil Heater	2,155				
Total	12,003				

# VI. Compliance

# Rule 2201 - New and Modified Stationary Source Review Rule

The applicant has proposed to bank ERCs for GHG. Rule 2201 provides requirements for banking the criteria pollutants, which has already been done in ERC projects S-1075362 and S-1080067. There are no additional applicable requirements from Rule 2201.

# Rule 2301 - Emission Reduction Credit Banking

Regarding GHG, the purpose of this Rule is to:

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

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

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

The emission reductions occurred when all permits were surrendered in 2007, the equipment was sold and removed from site, and no other engines or electric motors are being used to compress the gas. Therefore, this criteria has been satisfied.

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

The emissions occurred at the Lost Hills Section 15 Gas Plant located in NE Section 15, Township 27S, Range 21E in Lost Hills. Since this location is within the District, this criteria has been satisfied.

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

#### Real:

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

#### Surplus:

Since the GHG emission reductions occurred in 2007, they were not subject to any Cap and Trade regulations on or after January 1, 2012. Therefore, the GHG emission reductions are surplus and satisfy the requirements of Section 4.5.3.1.

There are no laws, rules, regulations, agreements, orders, or permits requiring any GHG emission reductions from cotton gins. Therefore, the emission reductions satisfy the surplus requirement in Section 4.5.3.2.

Since the GHG emission reductions are not the result of an action taken by the permittee to comply with any requirement, the GHG emission reductions are surplus, additional of all requirements, and satisfy the surplus requirement in section 4.5.3.4.

#### Permanent:

AERA has ceased operation of the 6 IC engines and the hot oil heater and surrendered the permits. The equipment has been dismantled and removed from the facility, and there are no other engines or electric motors connected to compress any remaining gas. Since no emissions have been shifted, the reductions are permanent.

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

While Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements regulating 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.

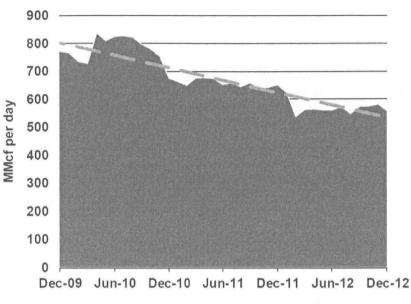
Pursuant to CEQA, lead agencies must consider the environmental impact of GHG emissions from a project and may require that such GHG emissions be mitigated. In evaluating various mitigation techniques, including the retirement of GHG ERCs, the lead agency must determine if the proposed mitigation technique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

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

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

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

#### CALIFORNIA GAS PRODUCTION



Sources: EIA / DOGGR / Navigant

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

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

The ERC Certificate will include the following identifier:

"Shutdown of engines and oil heater verified as permanent within the State of California"

#### Quantifiable:

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

#### Enforceable:

The engines and oil heater have been shut down and the PTOs have been surrendered to the District. Operation of the equipment without a valid permit would subject the permittee to enforcement action. Therefore, the emission reductions are enforceable.

**Section 4.5.4** requires that GHG emission reductions be calculated as the difference between the historic annual average GHG emissions (as CO<sub>2</sub>e) and the PE2 after the reduction is complete. The historical GHG emissions must be calculated using the consecutive 24 month period immediately prior to the date the emission reductions occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations.

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

**Section 4.5.5.5** requires that GHG emission reductions proposed to be quantified using CARB-approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

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

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

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

**Section 5** identifies ERC Certificate application procedures.

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

The ERC application was submitted on 7/16/12, therefore the application is timely.

Section 6.15 specifies the registration requirements for GHG ERCs.

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

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

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

## VII. Recommendation

Issue the ERC Certificate in the amounts posted in the table below and on the attached Draft ERC Certificate.

Bankable GHG ERCs (metric tons/year)	
GHG	12,003

# **List of Appendixes**

- A. Surrendered Permits to Operate
- B. Baseline Engine Fuel Use ChartC. Draft ERC Certificate

# Appendix A Surrendered Permits to Operate

**PERMIT UNIT: S-43-4-15** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 27S RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #1 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-5 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2C), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable. [District Rule 4403] Federally Enforceable Through Title V Permit
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.

  [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rule 4701 and 4702] 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: AERA ENERGY LLC Location: LOST HILLS GAS PLANT, NE 15, T.27S, R.21E., M.D.B.& M., LOST HILLS, CA 5434-15: Nov 10 2005 1 195791 - ANABELI

- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87,1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: LOST HILLS GAS PLANT, NE 15, T.27S, R:21E., M.D.B.& M., LOST HILLS, CA
843-41B. Nov 10 2005 1:56PM - AYABEU

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
- 35. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)] Federally Enforceable Through Title V Permit
- 36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
- 37. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403] Federally Enforceable Through Title V Permit
- 38. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT: S-43-5-14** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #2 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-4 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2B), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

### **PERMIT UNIT REQUIREMENTS**

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 2201, 230]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 9. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120.
  [District NSR Rule]
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable. [District Rule 4403]
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.

  [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv@ 15% O2 and 87.1 lb/day. [District NSR Rule]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC

LOGATION: LOST HILLS GAS PLANT, NE 15, T.278, R.21E., M.D.B.& M., LOST HILLS, CA

·iJ

- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content, [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2080]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions, representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]

190

ŧï.

- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]
- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]

**PERMIT UNIT: S-43-6-14** 

EXPIRATION DATE: 08/31/2009

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #3 INCLUDING SUPERIOR NATURAL GAS IC ENGINE AND SHARING WITH PERMIT UNIT S-43-4 AND '-5 INLET SCRUBBERS (V28/V29), COMPRESSOR (C-2A), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201] 4701, and 4702]
- 7.. Operation shall include tube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 9. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill I treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable.

  [District Rule 4403]
- Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.
   [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr, [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule]

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

Facility Name: AERA ENERGY LLC Location: LOST HILLS GAS PLANT,NE 15, T.27S, R.21E., M.D.B.& M.,LOST HILLS, CA

100

- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmy @ 15% O2 and 232.6 lb/day. [District NSR Rule]
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule]
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2080]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source. then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed
- during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]

1

- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In decident of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]
- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]

**PERMIT UNIT: S-43-7-11** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #4 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/PERMIT UNITS S-43-8 & '-9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1C), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- 7. This engine shall not be operated after June 1, 2007 for any reason without an ATC including the Rule 4702 emissions limits and any necessary retrofits needed to comply with the applicable requirements of District Rule 4702. [District Rule 4702]
- 8. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection, [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 13. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 14. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. SO2 emission rate shall not exceed 0.01 lb/hr. [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: AERA ENERGY LLC Location: LOST HILLS: GAS PLANT, NE 15, T, 27S, R. 21E., M.D.B.& M., LOST HILLS: CA 843-711: Nev 10 2005: 1377W - AVABEU

- 16. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmy @ 15% O2 and 40.2 lb/day. [District Rule 4701] Federally Enforceable Through Title V Permit
- 17. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule | Federally Enforceable Through Title V Permit
- 18. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title **V** Permit
- 20. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 23. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 30. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 31. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 33. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 35. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 36. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

**PERMIT UNIT: S-43-8-11** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #5 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/PERMIT UNITS S-43-7 AND '-9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1B), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

## PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit.
  [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rules 4701 and 4702] 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.

- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

**PERMIT UNIT: S-43-9-11** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #6 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED WITH PERMIT UNITS S-43-7 AND '-8 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1A), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 47021
- Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule] Federally Enforceable Through Title V Permit
- Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] Federally Enforceable Through Title V Permit
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr, [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmy @ 15% O2 and 40.2 lb/day. [District Rules 4701 and 4702] 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: AERA ENERGY LLC

LOST HILLS GAS PLANTINE 15, T.27S, R.21E., M.D.B.& M., LOST HILLS, CA

- Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Documentation of fuel gas sulfur content shall be submitted to District with source test results. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content, [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rules 406 (Fresno), 404 (Madera), 407 (Kern, Kings, San Joaquin, Stanislaus, Merced, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]

- 29. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action: The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 32. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702] Federally Enforceable Through Title V Permit
- 33. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 35. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

**PERMIT UNIT: S-43-15-8** 

**EXPIRATION DATE: 08/31/2009** 

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

DORMANT: 5 MMBTU/HR NATURAL GAS-FIRED HOT OIL HEATER

### PERMIT UNIT REQUIREMENTS

- 1. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- Operator shall provide written notification to the District 7 days prior to performing dormancy procedures on active systems or sections, and prior to recommencing operation of dormant systems or sections. [District Rule 2080]
   Federally Enforceable Through Title V Permit
- 3. Permittee shall not be required to perform source testing, fuel sulfur content certification, monitoring, inspections, or record keeping (except to document non-operation). [District Rule 2080] Federally Enforceable Through Title V Permit
- 4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
- 5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 sef. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Emission rates shall not exceed any of the following: NOx (as NO2): 0.10 lb/MMBtu, or CO: 112 ppmvd @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Excess combustion air shall be maintained at no less than 10% unless continuous operation analyzer/controller is utilized. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. The pressure regulator shall be set such that the heater's natural gas supply is limited to 5.0 MMBtu/hr. [District Rules 2201, 4305, 2.0 and 4306, 2.0] Federally Enforceable Through Title V Permit
- 9. The pressure regulator's adjusting screw(s) shall be fixed with wire seals. [District Rule] Federally Enforceable Through Title V Permit
- 10. Heater shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
- 12. Upon recommencing operation, fuel sulfur content and higher heating value shall be certified by a third party fuel supplier or each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2080 and 2520, 9.3.2] 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.

- 13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 14. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 15. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used, [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 16. The operator shall maintain all records of required monitoring data and support information for inspection at any time.

  [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

## Appendix B Baseline Engine Fuel-Use Chart

The engine fuel-use data is taken from ERC Project S-1075362. The fuel-use for each month for each engine is combined into monthly totals for all-engines-combined in the following table.

	Jan 03	Jan 04	Feb 03	Feb 04	Mar 03	Mar 04	Apr 03	Apr 04	May 03	May D4	Jun 03	Jun 04	Jul 03	Jul 64	Аца 03	Aug 04	Sep 03	Sep 04	Oct 02	Oct 03	Nov 02	Nov 03	Dec 02	Dec 03
S-43-4	1,232	4,416	660	4,374	4,417	4,500	1,635	3,123	2,048	1,306	690	672	2,185	865	2,403	0	4,041	0	2,119	4,446	2,949	4,568	4,244	4,383
8-43-5	4,538	4,378	3,934	4,425	3,050	4,744	3,932	3,867	4,205	2.041	3,232	14	2.837	1.351	1.873	77	2,913	359	3,396	4,508	3,920	4,574	2,089	4,122
8-43-6	3,305	159	3,886	45	1,373	Ö	2,421	1,110	2,711	18	4:547	3.041	4.324	2,481	4.334	4,588	1,239	3.851	3,390	250	1,448	0	2,437	606
8-43-7	2,011	3,011	3,472	2,352	3,773	273	2,638	1,729	3,846	822	398	426	1.840	19	1.427	13	1.892	31	3.721	2,265	1,568	3,723	187	1:013
6-43-8	1,683	1,872	0	2,112	2,859	4.022	3,378	2.103	3,820	3,189	3,573	1.735	2.715	1,255	3.755	3,801	3.449	1.164	2.853	3,916	2,029	3.848	3,505	3.989
8-43-9	4,175	0	3,350	34	1,228	0	727	0	0	0	3,181	1,803	2,805	3.203	2.287	1,716	1.748	3,131	767	1.763	3,638	0	3,745	2.104
Monthly Total	16,944	13,638	15,122	13,342	16,500	13,539	14,728	11,932	16,630	7,477	15,631	7,791	15,626	8,174	18,088	8,386	15,280	8,536	18,336	17,148	15,550	18,713	16,207	16,217

# Appendix C Draft ERC Certificate

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

## Emission Reduction Credit Certificate

**ISSUED TO:** 

**AERA ENERGY LLC** 

**ISSUED DATE:** 

<DRAFT>

**LOCATION OF** 

**LOST HILLS GAS PLANT** 

**REDUCTION:** 

NE S15, T27S, R21E., M.D.B.& M.

LOST HILLS, CA

## For CO2E Reduction In The Amount Of:

12003 metric tons / year

[ ] Conditions Attached

### **Method Of Reduction**

[X] Shutdown of Entire Stationary Source

[ ] Shutdown of Emissions Units

[ ] Other

Shutdown of engines and oil heater 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

Preliminary Review Checklist

Guiding Principle: The preliminary review is limited to those tasks necessary to assure that the District has obtained all of the necessary information to perform the final evaluation.

F	Facility I.D. Number	S-43		***							
	Project Number	1122749									
	Company Name										
	Location										
	Process Engineer										
	Date	7/17/12									
	Application Ty	/pe	Permit Unit Number(s)								
$\boxtimes$	ERC Banking for G	HG	S-43-4, -5, -6, -7, -8, -	9 and -15							
	Modify existing emi	ssions units		<del></del>		·					
	Project Proposal (complete and concise description)										
GHG Banking for the shutdown of engines S-43-4 thru -9 and hot oil heater -15. Normal ERCs were banked in projects 1075362 and 1080067.											
		Application Cor	ntent		Yes	-≓No∵					
- 1.	Does the application applicant's proposal,				☐ Incomplete						
2.	Does the application permit unit boundarie	-	ine the	×	Incomplete						
3.	Does the application emissions units, inclu	ns for all		Incomplete							
	R		Yes	No							
68.	Has the applicant rec	uested reimburs	ng?		Skip to 70						
		Filing Fees			Yes	No					
70.	Have all the filing fee	s been paid?			Incomplete unless RO						
		Co	ompleteness Determi	nation	· · · · · · · · · · · · · · · · · · ·						
be ob inforn	stained. If the informat nation have been unsu	tion is too compre accessful as of yo	questions in this prelime hensive to obtain by plour due-date, then deen nformation and/or fees.	hone or ema n the applica	ail, or if attempts to ation incomplete a	o gather the and send an					
		C	comments and Refere	nces	A STATE OF THE STA						
	·										

1/1

07/12



### CENTER for BIOLOGICAL DIVERSITY

April 17, 2014

### Via email: <u>Dave.Warner@valleyair.org</u>

David Warner
San Joaquin Valley Air Pollution Control District
1990 E. Gettysburg Ave.
Fresno, CA 93726

Re: Proposed Issuance of Greenhouse Gas Emission Reduction Credits Aera Energy, LLC (Facility No. S-43; Project No. S-1122749)

Dear Mr. Warner:

The Center for Biological Diversity ("Center") submits the following comments on the proposed issuance of Emission Reduction Credits ("ERCs") stemming from shutdown of six natural gas compressor engines and one oil heater at the above-referenced facility. For the reasons stated below and in the attached letter to the California Air Pollution Control Officers Association ("CAPCOA"), the proposed ERCs cannot be listed on CAPCOA's GHG Rx carbon credit exchange pursuant to the "case-by-case" protocol.<sup>1</sup>

Like the facilities discussed in the attached letter, Aera Energy shut down operations in 2007 for purely economic reasons having nothing to do with voluntary efforts to reduce greenhouse gas emissions; as the District's ERC Application Review makes clear, the shutdown was "due to declining gas production in the fields surrounding the plant" resulting in "a lack of gas to compress." Accordingly, as detailed in the attached letter, the proposed ERCs do not satisfy the additionality tests set forth in CAPCOA's "case-by-case" protocol and thus cannot be listed on the GHG Rx exchange.

The Application Review further suggests that ERCs banked pursuant to the application would be suitable for mitigation purposes under the California Environmental

<sup>&</sup>lt;sup>1</sup> Kevin P. Bundy, Center for Biological Diversity, Letter to Jack Broadbent, CAPCOA, Re: CAPCOA GHG Rx—Listing of Non-Compliant Credits (Feb. 18, 2014) (attached as Ex. A).

<sup>&</sup>lt;sup>2</sup> San Joaquin Valley Air Pollution Control District, ERC Application Review – Shutdown of Six Engines and One Oil Heater 2, 8 (Feb. 18, 2014) ("Application Review").

Mr. David Warner Proposed GHG ERCs for Aera Energy, LLC (S-1122749) April 17, 2014

Quality Act ("CEQA"), Public Resources Code section 21000, et seq.<sup>3</sup> This is incorrect as a matter of law, Emissions "reductions" resulting from the past shutdown of facilities for purely economic reasons are unsuitable for use as CEOA mitigation. Again, the six engines and oil heater were shut down in 2007.<sup>4</sup> Any reductions in emissions associated with this shutdown are therefore part of the "existing conditions" baseline against which any future CEQA project's effects will be measured.<sup>5</sup> The existing environmental background cannot be considered mitigation for CEOA purposes. CEOA requires actual, effective mitigation of significant environmental impacts. Pub. Res. Code §§ 21002, 21002.1(b), 21081. In order to mitigate new greenhouse gas emissions from a proposed project, therefore, CEOA lead agencies must identify additional feasible emissions reductions that would not already have occurred in the absence of the mitigation requirement. A project proponent could not "mitigate" the loss of state park land by simply identifying other state parks already in existence at the time the project was proposed. Nor could a real estate developer "mitigate" the conversion of agricultural land by pointing to pre-existing Williamson Act contracts. Mitigation under CEOA requires concrete, enforceable action to minimize, avoid, or reduce a project's effects. Background actions that would have occurred anyway cannot satisfy this requirement. Accordingly, any ERC issued pursuant to this application should bear a notation that it is not suitable for use as CEOA mitigation.

Thank you for your consideration. Please do not hesitate to contact me with any questions.

Sincerely,

Kevin P. Bundy Senior Attorney

Encl.

<sup>&</sup>lt;sup>3</sup> Application Review at 7 (anticipating "that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the CEQA process").

<sup>&</sup>lt;sup>4</sup> Application Review at 2.

<sup>&</sup>lt;sup>5</sup> CEQA Guidelines, Cal. Code Regs. title 14, § 15125.



### CENTER for BIOLOGICAL DIVERSITY

February 18, 2014

### Via Hand Delivery

Jack Broadbent
President, CAPCOA
1107 9th Street
Sacramento, CA 95814

Re: CAPCOA GHG Rx—Listing of Non-Compliant Credits

Dear Mr. Broadbent:

On behalf of the Center for Biological Diversity ("Center"), I am writing to alert you to serious concerns regarding greenhouse gas reduction credits listed on the CAPCOA GHG Rx exchange by the San Joaquin Valley Air Pollution Control District ("SJVAPCD"). Specifically, the SJVAPCD has approved and listed hundreds of thousands of greenhouse gas reduction credits under CAPCOA's case-by-case protocol that clearly violate the protocol's additionality requirements. These credits cannot lawfully be used in satisfaction of mitigation requirements under the California Environmental Quality Act ("CEQA"). Their presence on the GHG Rx exchange also raises serious questions about CAPCOA's endorsement of and ability to oversee the quality of credits listed on the exchange.

Put simply, a vast majority of the credits approved by SJVAPCD represent "reductions" related to the shutdown of cotton ginning and sugar beet processing facilities that ceased operations for economic reasons entirely unrelated to incentives created by a market for greenhouse gas offsets. One application alone—from the Spreckels Sugar Company—represents more than 1.3 million emission reduction credits, more than three-quarters of the 1.7 million total credits currently listed on the GHG Rx exchange. The Spreckels application explains that the facility shut down in August of 2008, and sought to claim emissions "reductions" stemming from cessation of operation

<sup>&</sup>lt;sup>1</sup> As CAPCOA is aware, the Center has other concerns about the integrity of offsets generated under protocols adopted or contemplated for adoption under the GHG Rx exchange. See, e.g., Brian Nowicki, Center for Biological Diversity, letter to Aaron Katzenstein, South Coast Air Quality Management District, Re: CAPCOA GHG Rx Forestry Protocols (January 23, 2014). We are also aware of and generally share the concerns of other environmental organizations regarding the integrity of the case-by-case protocol. The purpose of this letter is solely to alert CAPCOA to the presence of credits on the exchange that plainly fail to meet the requirements of the case-by-case protocol, our overarching concerns notwithstanding.

Mr. Jack Broadbent, CAPCOA GHG Rx—Listing of Non-Compliant Credits February 18, 2014

of a lime kiln and a natural gas fired boiler.<sup>2</sup> The application sought credit for reductions of 68,861 tons of carbon dioxide equivalent ("CO<sub>2</sub>e") per year over a 20-year period, for a total of 1,397,220 tons.<sup>3</sup> The SJVAPCD's application review document explains, however, that the facility shut down because of dramatic declines in sugar beet production related to economic considerations (including high transportation costs).<sup>4</sup> Accordingly, the facility shutdown—and the corresponding reduction in emissions from the lime kiln and boiler—were not motivated by, and in fact were completely unrelated to, the potential availability of emission reduction credits. Indeed, the facility shut down a full four years before the credit application was filed.<sup>5</sup> Numerous similar applications have been approved by SJVAPCD for "reductions" associated with the shutdown of cotton ginning operations for economic reasons unrelated to the availability of emission reduction credits.<sup>6</sup>

These credits plainly fail to satisfy the additionality test set forth in CAPCOA's case-by-case protocol. As stated in that protocol, the purpose of the GHG Rx exchange is to list "high quality" credits "created when projects or practices are *implemented* specifically to reduce GHG emissions that are not required by law or other mechanisms to reduce emissions, and the resulting reductions are recognized by CAPCOA members." The protocol requires applications to demonstrate the additionality of reductions using two tests: a "regulatory surplus" test and a "fiscal" test. The fiscal test is intended to ensure that "the action that resulted in the emission reduction would not have likely taken

<sup>&</sup>lt;sup>2</sup> San Joaquin Valley Air Pollution Control District, Greenhouse Gas Emission Reduction Credit Banking Application Review, Facility No. C-1179 (Dec. 1, 2013) at 1.

 $<sup>^{3}</sup>$  *Id.* at 2.

<sup>&</sup>lt;sup>4</sup> *Id.* at 9-10.

<sup>&</sup>lt;sup>5</sup> *Id.* at 1.

<sup>&</sup>lt;sup>6</sup> See, e.g., San Joaquin Valley Air Pollution Control District, ERC Application Review — Greenhouse Gases, Cotton Gin Shutdown, Anderson Clayton Corporation (Jan. 30, 2013) at 1, 6-7 (cotton gin shut down in 2007 due to declining need for cotton ginning facilities in light of decline in cotton production).

<sup>&</sup>lt;sup>7</sup> CAPCOA GHG Rx Quality Criteria: Protocol for Case by Case GHG Emission Reductions & Criteria for Evaluation of New Protocols (as amended April 24, 2013) ("Case-by-Case Protocol") at 1 (emphasis added).

<sup>8</sup> Id. at 5-6. CAPCOA should be aware that the SJVAPCD's greenhouse gas emission

reduction credit banking program, embodied in the district's Rule 2301, requires projects only to meet one of two versions of the "regulatory" test. SJVAPCD Rule 2301§§ 4.5.3.3, 4.5.3.4. There is no corresponding requirement in Rule 2301 that projects demonstrate additionality using any form of a "fiscal" or performance test. Moreover, Rule 2301 does not require projects to be both surplus and additional in order to satisfy the regulatory test; rather, projects may qualify for emission reduction credits even if the associated reductions were achieved as a result of compliance with other mandatory rules or regulations. *Id.*, § 4.5.3.3. Accordingly, consistency with Rule 2301—the primary criteria for evaluation used by SJVAPCD—by definition does not demonstrate compliance with the additionality requirements of CAPCOA's case-by-case protocol.

Mr. Jack Broadbent, CAPCOA GHG Rx—Listing of Non-Compliant Credits February 18, 2014

place in the absence of a market for the resulting GHG emission reduction credits or in the anticipation of such a future market for such reductions." On the face of the application review documents themselves, the Spreckels sugar beet processing and cotton gin shutdown credits approved by SJVAPCD fail to satisfy the additionality requirements of CAPCOA's case-by-case protocol. These credits should not be listed on the GHG Rx exchange.

The fact that these credits have been listed on the exchange—without any apparent review or oversight by CAPCOA regarding their consistency with the case-by-case protocol—demonstrates a serious weakness in the exchange's governance structure. CAPCOA should immediately review all applications approved by SJVAPCD for listing on the exchange and should promptly remove any credits—starting with the Spreckels and cotton gin shutdown credits—that do not demonstrate additionality. CAPCOA also should undertake a thorough review of its administrative guidelines and memoranda of understanding with member agencies to ensure adequate oversight and quality control. Finally, public notice and participation—both in review of protocols and in evaluation of specific project applications—is essential to ensure that this program has integrity.

The Center has long appreciated CAPCOA's leadership on climate change in general, and particularly in developing strategies for evaluating and mitigating greenhouse gas emission impacts under CEQA. We look forward to working with CAPCOA and its member agencies to address this and other concerns related to the integrity of the GHG Rx exchange. Thank you for your consideration of these comments.

Sincerely,

Kevin P. Bundy Senior Attorney

Cc: Alan Ramo, Golden Gate University School of Law

<sup>&</sup>lt;sup>9</sup> *Id*. at 6.

## ERC PROJECT ROUTING FORM

FACILITY NAME:	Aera Energy LL	C			·						
FACILITY ID:	S-43	PROJECT NUMBER: S-1122749									
PERMIT #'s:	S-43-4, -5, -6, -7	7, -8, -9 and -15									
DATE RECEIVED: July 16, 2012											
PRELIMINARY	REVIEW	ENGR	DATE	SUPR	DATE						
A. Application Deemed	ncomplete										
Second Information	Letter										
B. Application Deemed	Complete	SR	7/17/12	AP	7-18-12						
C. Application Pending I	Denial				; ;						
D. Application Denied					1						
ENGINEERING	INITIAL	DATE									
E. Engineering Evaluation		,									
Project triggering Fe     [ ] Yes AND Infe											
<ul><li>[X] No (not Fed M</li><li>District is Lead Age</li></ul>	5K	2/18/14									
increase exceeds 2: [ ] Yes AND Infi [X] Not Required											
F. Supervising Engineer	RWK	2 25 14									
G. Compliance Division	5R	2/0/14									
H. Applicant's Review of											
[ ] 3-day Revlew [ ] 10-day Reviev [ ] No Review Re											
I. Permit Services Regi	08	スノスフリイ									
DIRECTOR RE	VIEW [ ] Not Req	uired		INITIAL	DATE						
J. Preliminary Approval	to Director										
K Final Approval to Dire	ector										



JUL 1 8 2012

**Brent Winn** Aera Energy LLC PO Box 11164 Bakersfield, CA 93389

**Notice of Receipt of Complete Application - Emission Reduction Credits** Re:

Banking

**Project Number: S-1122749** 

Dear Mr. Winn:

The District has completed a preliminary review of your application for Emission Reduction Credits (ERCs) Banking resulting from green house gas banking for the shutdown of the Lost Hills Gas Plant, located in NES 15, T 27S, R 21E, in Lost Hills.

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. Steven A. Roeder at (661) 392-5615.

Sincerely.

**David Warner** 

**Director of Permit Services** 

Leonard Scandura, P.E.

**Permit Services Manager** 

DW: SAR

www.valleyair.org

**Southern Region** 

#### AUG 21 2012

Brent Winn Aera Energy LLC PO Box 11164 Bakersfield, CA 93389

Re: Notice of Request for Additional Information - Emission Reduction Credits

Banking

Project Number: S-1122749

Dear Mr. Winn:

The District is reviewing your application for Emission Reduction Credits (ERCs) Banking resulting from green house gas banking for the shutdown of the Lost Hills Gas Plant, located in NE S 15, T 27S, R 21E, in Lost Hills.

The following information is required prior to further processing:

Please provide additional information to demonstrate that the GHG emission reductions are permanent, and not replaced by emissions elsewhere. As you may know, the District is interested in working with interested stakeholders to develop applicable policies on the permanence of GHG emission reductions.

Thank you for your cooperation. Should you have any questions, please contact Mr. Steven A. Roeder at (661) 392-5615.

Sincerely,

David Warner Director of Permit Services

Leonard Scandura, P.E. Permit Services Manager

DW: SAR



AUG 21 2012

**Brent Winn** Aera Energy LLC PO Box 11164 Bakersfield, CA 93389

Notice of Request for Additional Information - Emission Reduction Credits Re:

**Banking** 

**Project Number: S-1122749** 

Dear Mr. Winn:

The District is reviewing your application for Emission Reduction Credits (ERCs) Banking resulting from green house gas banking for the shutdown of the Lost Hills Gas Plant, located in NE S 15, T 27S, R 21E, in Lost Hills.

The following information is required prior to further processing:

Please provide additional information to demonstrate that the GHG emission reductions are permanent, and not replaced by emissions elsewhere. As you may know, the District is interested in working with interested stakeholders to develop applicable policies on the permanence of GHG emission reductions.

Thank you for your cooperation. Should you have any questions, please contact Mr. Steven A. Roeder at (661) 392-5615.

Sincerely,

**David Warner Director of Permit Services** 

Leonard Scandura, P.E. Permit Services Manager

DW: SAR

Seyed Sadredin

**Executive Director/Air Pollution Control Officer** 

### Steven Roeder

From:

Winn BT (Brent) at Aera <BTWinn@aeraenergy.com>

Sent:

Monday, August 27, 2012 4:02 PM

To: Cc: Steven Roeder Leonard Scandura

Subject:

ERC Application for LH Gas Plant GHG Emissions - Request for Addl Info

#### Steve:

The Lost Hills Gas Plant was completely disassembled and sold to another company. The gas plant compression and heaters were not replaced by any other process at Aera.

OR is this letter suggesting that the GHG credits may not be permanent or surplus if the engines and heaters were started up elsewhere in...

- 1) The SJV?
- 2) The air basin?
- 3) The state?
- 4) The nation?
- 5) The world?

#### Steven Roeder

From:

Winn BT (Brent) at Aera < BTWinn@aeraenergy.com>

Sent:

Friday, January 17, 2014 10:00 AM

To:

Steven Roeder

Subject:

RE: GHG ERC Banking Project

#### Steve:

- 1) ALL combustion equipment has been completely removed from the Section 15 Gas Plant site, so the reductions are permanent for the site.
- 2) As I understand it, the removed equipment was sold to Crimson RMC. Crimson's website says "Crimson Resource Management Corp. is a privately-held oil and gas production company based in Denver, Colorado. All of Crimson's oil and gas operations are located in California, primarily in the San Joaquin Basin." Crimson did not transfer the SJVAPCD permits from Aera so they would have to provide emission offsets or emission netting to obtain permits if they re-used the equipment in the San Joaquin Valley or Ventura area. Any offsets/netting provided by Crimson for NOx, VOC, SOx, or PM10 would have included corresponding/collateral reductions for Greenhouse Gases.
- 3) The Section 15 Gas Plant was shut down due to declining gas production in the fields surrounding the plant.

Thank you,

-B. Winn

From: Steven Roeder [mailto:Steve.Roeder@valleyair.org]

Sent: Thursday, January 16, 2014 8:29 AM

To: Winn BT (Brent) at Aera
Subject: FW: ERC Banking Project

Hi Brent.

We still need two things to finish processing your ERC application for GHG at S-43. Regarding the Permanence of the shutdown of the Lost Hills Section 15 Gas Plant:

- 1. Please declare the geographic boundary of the Permanence of the reduction. For example the facility, or the state of California... along with a reason why you believe those reductions are permanent within that boundary, and
- 2. Why was the gas plant shut down?

Thank you very much.

Steve Roeder

Engineer - Permit Services Division San Joaquin Valley Air Pollution Control District 34946 Flyover Court Bakersfield, CA 93308 (661) 392-5615



July 12, 2012

San Joaquin Valley APCD 34946 Flyover Court Bakersfield, CA 93308

ATTN: Manager, Permit Services

<u>RE</u>: Request for CO₂E Emission Reduction Credits - Aera Energy LLC (Facility S-43)

SJVAPCD Southern Region

The District modified Rule 2301 on January 19, 2012 to allow the issuance of CO<sub>2</sub>E Emission Reduction Credits (ERCs) from sources previously shut down. Aera Energy LLC (Aera) is hereby applying for CO<sub>2</sub>E Emission Reduction Credits (ERCs) for the shutdown of six (three, 1,100-hp and three, 826-hp) lean burn natural gas-fired IC engines driving Section 15 Gas Plant Compressors (S-43-4 through-9) and one hot oil heater (S-43-15). The Permits to Operate (PTOs) for the IC engines were surrendered August 27, 2007. The application for CO2E ERCs is considered timely because it is filed within 180 days following amendment of District rule 2301 (section 5.5.2). The shutdown meets the definition contained in Rule 2301 section 3.14.

Attached you will find the following:

- Application for CO<sub>2</sub>E Emission Reduction Credit (ATC)
- Check for \$759 filing fee.
- Draft Application Review.
- Spreadsheet showing baseline fuel usage and CO₂E emission reduction calculations.

Thank you for your consideration in this matter. We appreciate your assistance in processing this application in a timely manner. Should you need additional information or have any questions, please contact me at (661) 665-4363.

Sincerely

**Brent Winn** 

Environmental Engineer

Belridge Producing Complex

# San Joaquin Valley Air Pollution Control District Application for

RECEIVED

JUL 16 2012

SJVAPCD Southern Region

[X] EMISSION REDUCTION CREDIT (ERC)

[ ] CONSOLIDATION OF ERC CERTIFICATES

1,	ERC TO BE ISSUED TO	: Aera Energy	LLC				Facility ID: _S43 (if known)	
2.	MAILING ADDRESS: Street/P.O. Box; P.O. Box 11164							
		City:F	Bakersfield			State;CA	_Zip Code: _93389-1164	
3.	LOCATION OF REDUCTION: Lost Hills Section 15 Gas Plant Street:				4. DATE OF REDUCTION: The permits for the IC engines and the hot oil heater			
	City:				were surrender	ed August 27, 2007.		
	NE/4 SECTI	ON15 TOWNS	HIP T278	RANGE R21	E			
5.	PERMIT NO(S): S-43-	4, S-43-5, S-43-6	S-43-7, S-43-8,	S-43-9, S-43-15	F	EXISTING ERC NO(S	8):	
6.	METHOD RESULTING	IN EMISSION REDU	UCTION:					
	[X] SHUTDOWN	[ ] RETRO	FTT [	] PROCESS CHAN	<b>IGE</b>	OTHER		
	DESCRIPTION: Lost Crimson Reso	Hills Gas Piant ources Manage		ently shut do	wn. Equi	pment was sol	d to and removed	d by
_				<u> </u>			(Use additional sheets if nee	cessary)
7.	REQUESTED ERCs: (In					· · · · · · · · · · · · · · · · · · ·		7
	1 <sup>st</sup> Qtr	VOC	NOx	CO	PM <sub>10</sub>	SOx	Other	
	2 <sup>nd</sup> Qtr							1
	3 <sup>rd</sup> Qtr 4 <sup>th</sup> Qtr	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;						1
	CO <sub>2</sub> e	11,083	metric ton/yr					_
8.	SIGNATURE OF APPLI	CANT:		TYPE OR I	PRINT TITL	E OF APPLICANT:		
	Environmental Engineer							
9.	9. TYPE OR PRINT NAME OF APPLICANT: Brent Winn  DATE:  Telephone no: (661) 665-4363							
FOR	APCD USE ONLY:					A	lva	
	DATE STAMP  FILING FEE RECEIVED: \$ 75							
			DATE PAID: 🖋	m 7/16/			# 1234 3-43	
	PROJECT NO.; <u>S-1122749</u> FACILITY ID.; <u>5-45</u>							

# APPLICATION REVIEW EMISSION REDUCTION CREDIT BANKING

Facility Name:

Aera Energy LLC

**Mailing Address:** 

P.O. Box 11164

Bakersfield, CA 93389

**Contact Name:** 

Brent Winn, Environmental Engineer

Telephone:

(661) 665-4363

**Engineer:** 

Date:

Lead Engineer:

Date:

**Project Number:** 

S-43, xxxxxx

**ERC Certificate #:** 

S-xxxx-X CO<sub>2</sub>E

Date Received: Date Complete:

#### I. SUMMARY

The District modified Rule 2301 on January 19, 2012 to allow the issuance of CO<sub>2</sub>E Emission Reduction Credits (ERCs) from sources previously shut down. Aera Energy LLC (Aera) has applied for CO<sub>2</sub>E Emission Reduction Credits (ERCs) for the shutdown of 6 (three 1,100 hp and three 826 hp) lean burn natural gas-fired IC engines driving Section 15 Gas Plant Compressors (S-43-4 through-9) and one hot oil heater (S-43-15). The Permits to Operate (PTOs) for the IC engines were surrendered August 27, 2007. The application for CO<sub>2</sub>E ERCs is timely because it was filed within 180 days following amendment of District rule 2301 pursuant to section 5.5.2. The shutdown meets the definition contained in Rule 2301 section 3.14. Reference will be made to and information used from previous District ERC projects 1075362 and 1080067.

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

#### **Bankable Emission Reductions**

	Metric Tons/year
CO₂E	11,083

#### II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (April 21, 2011)

Rule 2301 Emission Reduction Credit Banking (January 19, 2012)

#### III. PROJECT LOCATION

The subject six (6) IC engines and hot oil heater were located at the Lost Hills Section 15 Gas Plant (facility S-43), NE Section 15, T27S, R21E.

#### IV. METHOD OF GENERATING REDUCTIONS

Aera's sale of the gas plant equipment to Crimson Resource Management was finalized July 19, 2007. The equipment was shutdown and removed from the site. Aera surrendered the permits for the IC engines and the hot oil heater on August 27, 2007. Aera applied for and obtained ERCs for certain criteria pollutants associated with the shutdown of this equipment in 2007.

The surrendered PTOs are included in Attachment I.

#### V. CALCULATIONS

#### A. Assumptions

- IC Engine CARB default fuel higher heating value = 1027 Btu/scf was used.
- CO<sub>2</sub>E HAE is calculated based on the fuel use (mcf) multiplied times the EPA/CARB approved emission factors for CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>. (Attachment II)
- <u>Fuel Use for IC Engines and Hot Oil Heater</u> To be consistent, fuel usage totals are taken from the same numbers as used in ERC projects 1075362 and 1080067.
- Calculations use CARB approved formulas and global warming potential factors as appropriate.

#### **B.** Emissions Factors

#### **Emissions Factor**

CO<sub>2</sub>: 53.02 kg CO<sub>2</sub>/MMBTU

 $N_2O$ : 0.001 kg  $N_2O/MMBtu$ 

CH<sub>4</sub>: 0.001 kg CH<sub>4</sub>/MMBtu

40 CFR 98 Subpart C - Table C-1 and C-2 to Subpart C—Default CO<sub>2</sub>; Emission Factors and High Heat Values for Various Types of Fuel (Attachment II).

## Conversion factors between GHGs and CO2E

 $CO_2$ : GWP = 1

 $N_2O$ : GWP = 310

CH4: GWP = 21

District rule 2301 section 3.7 Table 1.

#### C. Baseline Period Determination and Data

District Rule 2301, Section 4.5.4 states that "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 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 CO2E) after the project is complete, except as provided in section 4.5.5."

The ERC application was deemed complete on XXXX X, 2012. The two-year period immediately prior to shutdown (December 2005 - December 2007) was not considered representative of normal operation. In 2004 produced gas from Aera and Chevron was diverted from the gas plant and operations were severely curtailed. After 2004, engines S-43-4 through `-9 were either not operating or were consuming much less than normal quantities of gas. See District ERC projects 1075362 and 1080067.

As explained in District project 1075362, the time period from 4<sup>th</sup> Quarter 2002 through 3<sup>rd</sup> Quarter 2004 was selected as the baseline period for the six (6) IC engines.

As explained in District project 1080067, the time period from 1<sup>st</sup> Quarter (Feb and Mar) 2003 through January 2005 was selected for the hot oil heater.

The IC engine compressors were shutdown before the hot oil heater. The demand for the compressor engines was significantly reduced in May 2004 when Aera stopped processing their Lost Hills produced gas in the plant. However, Chevron continued to send their Lost Hills gas for processing - until January 2005. The hot oil heater provided heat for the plant processes (for such things as glycol reboiler) and therefore it had to remain in operation until January 2005 when Chevron stopped sending gas to the plant.

#### D. Historical Actual Emissions

#### Annual Fuel Use for IC Engines

Annual fuel use for the IC engine is calculated as the average annual amount of fuel consumed during the 4<sup>th</sup> Quarter 2002 through 3<sup>rd</sup> Quarter 2003 and 4<sup>th</sup> Quarter 2003 through 3<sup>rd</sup> Quarter 2004.

#### Annual Fuel Use for Hot Oil Heater

Annual fuel use for the hot oil heater is calculated as the average annual amount of fuel consumed during the 1<sup>st</sup> Quarter (Feb and Mar) 2003 through January 2005.

#### Calculation of HAE for IC Engines and Hot Oil Heaters (sample)

HAE is the product of average annual fuel use for the IC engines and hot oil heaters (mcf) times the high heat value (ARB default) times the emission factor in kg /MMBTU. The result is converted to metric tons and multiplied by each compound GWP to obtain  $CO_2E$ . This calculation is repeated for  $CO_2$ ,  $N_2O$  and  $CH_4$ . The three results are added together to obtain a total  $CO_2E$  in metric tons per year.

HAE (CO<sub>2</sub>E) = Fuel MCF/year X 1027 BTU/CF X EF kg/MMBTU X 0.001 metric ton/kg X GWP

The calculation of HAE for the IC engines and the hot oil heater is summarized in the table below.

Detailed calculations are presented in Attachment IV.

Average Annual HAE

Pollutant	Metric ton/yr	
CO <sub>2</sub> E	11,083	

## E. Actual Emission Reductions (AER)

Aera has applied for greenhouse gas (CO<sub>2</sub>) ERC banking credits for the permanent cessation of six (6) IC engines (S-43-4 through `-9) and one hot oil heater (S-43-15). The engines and the hot oil heater were removed from the site and not replaced. Therefore, the HAE is equal to the actual emissions reductions (AER).

AER = HAE

AER	Metric ton/yr
CO₂E	11,083

### F. Air Quality Improvement Deduction (10% of AER)

The air quality improvement deduction (AQID) is not required for calculation of CO₂E emission reduction credits.

#### G. Increases in Permitted Emissions (IPE)

No IPE is associated with this project.

### H. Bankable Emissions Reductions Credits (AER — AQID)

ERC	Metric ton/yr
CO <sub>2</sub>	11,083

#### VI. COMPLIANCE

To be eligible for banking, the greenhouse gas emission reductions must meet the criteria as outlined in District Rule 2301 section 4.5.

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.

This is not a CARB approved GHG emission reduction project protocol. Aera ceased operation of the 6 IC engines and the hot oil heater. The engines were dismantled and removed from facility S-43. Aera's sale of the equipment to Crimson Resource Management was finalized July 19, 2007. The shutdown (reduction) occurred in 2007 (after January 1, 2005) and the permits to operate (PTOs) were surrendered on August 27, 2007.

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

The subject 6 IC engines and the hot oil heater were located at the Lost Hills Section 15 Gas Plant (facility S-43), NE Section 15, T27S, R21E which is located within the San Joaquin Valley Air Pollution Control District.

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

Since this is not a CARB approved GHG emission reduction project protocol, section 4.5.5 does not apply,

- Real-Aera ceased operation of the 6 subject IC engines and the hot oil heater. They have been dismantled and removed from the site. Permits to Operate (PTOs) were surrendered August 27, 2007. Therefore, the reductions from S-43 are real.
- Surplus The greenhouse gas emissions are the result of a shutdown.
  - 4.5.3.1 Greenhouse gas emission reductions that occur at a facility subject to the

CARB greenhouse gas cap and trade regulation on or after January 1, 2012 are not surplus.

The shutdown (reduction) occurred in 2007 (after January 1, 2005) and the permits to operate (PTOs) were surrendered on August 27, 2007. Aera (S-43) was not subject to greenhouse gas cap and trade regulations on or after January 1, 2012. Therefore, these emissions are surplus.

4.5.3.2 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 emission reductions are the result of a facility shutdown and reductions are not the result of a of law, rule, or regulation that required the greenhouse gas emission reduction. Therefore, these emissions are surplus.

4.5.3.3 Greenhouse gas emission reductions that occur due to an action taken by an facility that is not the result of any greenhouse gas emission reduction requirement are surplus and additional of all greenhouse gas reduction requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.2.

These emission reductions are the result of a facility shutdown and are not the result of any greenhouse gas reduction requirement. Therefore, the ERC certificate shall include the following shall include the following notation:

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

4.5.3.4 Greenhouse gas emission reductions that occur due to an action taken by a facility that is not the result of any requirement, including any requirement that is not intended to control greenhouse gases, are surplus and additional of all requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.3.

These emission reductions are the result of a facility shutdown and not the result of any requirement that is intended to control greenhouse gases. Therefore, the ERC certificate shall include the following shall include the following notation:

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

As described above, these greenhouse gas emission reductions are surplus.

Permanent - Aera has ceased operation of the 6 IC engines and the hot oil heater. The
equipment has been dismantled and removed from facility S-43. Aera's sale of the
equipment to Crimson Resource Management was finalized July 19, 2007. Crimson
Resource Management will not be allowed to operate the engines at any location without

first receiving Authorities to Construct subject to the offset requirements of District Rule 2201 New Source Review. The permits for the IC engines and the hot oil heater were surrendered August 27, 2007. Therefore, the reductions are permanent.

- Quantifiable The AERs were calculated using District recognized emission factors and actual historical fuel use data. Therefore, the reductions are quantifiable.
- Enforceable The permits for the IC engines and the hot oil heater were surrendered August 27, 2007. Therefore, the reductions are enforceable.

#### VII. RECOMMENDATION

After public notice, comments and review, issue ERC Banking Certificate S-xxxx-X to Aera Energy LLC for the following amounts:

ERC Certificate	Metric Tons/Year
S-xxxx- x CO₂E	11,083

The draft ERC certificates are included in Attachment IV.

# ATTACHMENT I

**Surrendered PTOs** 

**CONDITIONS FOR PERMIT S-43-4-15** 

Page 1 of 3 08/31/2009

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC

**MAILING ADDRESS:** 

LOCATION:

PO BOX 11164

BAKERSFIELD, CA 93389

LOST HILLS GAS PLANT

NE 15, T.27S, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 27S RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #1 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-5 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2C), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

## CONDITIONS

- {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active 2. emission unit. [District Rule | 070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable. [District Rule 4403]
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting. [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rule 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]

#### **CONDITIONS FOR PERMIT S-43-4-15**

Page 2 of 3

18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 on EPA Method 18, referenced as methane, not less than once every 24 months. [Bistrict NSR Rule]

19. Documentation of fuel gas sulfur content shall be submitted to Ulstrict With source less results, [District NSR Rule]

- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppm on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 1070]
- If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 1070]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 1071]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]
- 26. The permittee shall monitor and record the stack concentration of NOx, CQ, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations of a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]

#### **CONDITIONS FOR PERMIT S-43-4-15**

Page 3 of 3

31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4 [02]]

- 32. The permittee shall update the l&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the light plan and must suit in an updated l&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the l&M plan shall be recorded in the engine's operating log. For modifications, the revised l&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the l&M plan at any time. [District Rule 4702]
- 33. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 34. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 1070]

**CONDITIONS FOR PERMIT S-43-5-14** 

Page 1 of 3

Page 1 of 3

EXPERATION DATE: 08/31/2009

LEGAL OWNER OR OPERATOR:

MAILING ADDRESS:

AERA ENERGY LLC PO BOX 11164

BAKERSFIELD, CA 93389

LOCATION:

**LOST HILLS GAS PLANT** 

NE 15, T.278, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

1,100 BHP PRECOMPRESSION OPERATION #2 INCLUDING SUPERIOR NATURAL GAS FIRED IC ENGINE AND SHARING WITH PERMITS S-43-4 AND '-6 INLET SEPARATORS (V28/V29), COMPRESSOR (C-2B), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

## CONDITIONS

- 1. {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit.
  [District Rule 2080]
- Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201, 4701, and 4702]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- 8. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill I treating facility served by vapor collection and control system S-1548-120.
   [District NSR Rule]
- 10. Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable.

  [District Rule 4403]
- 11. Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting.

  [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule]
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]

#### **CONDITIONS FOR PERMIT S-43-5-14**

Page 2 of 3 ARB Method 100, and

18. District-witnessed source testing for NOx and CO emission rates shall-be District-witnessed source testing for VOC emission rates shall be conducted using EPA Wethod 25 of EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]

19. Documentation of fuel gas sulfur content shall be submitted to Wishird with source dest respites [District NSR Rule]

- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppm on a dry consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 20801
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- {2993} If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. {2994} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. {2995} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]

#### **CONDITIONS FOR PERMIT S-43-5-14**

Page 3 of 3

- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 32. The permittee shall update the l&M plan for this engine prior to party planned change in operation. The permittee must notify the District no later than seven days after changing the later than and the APCO no later than 14 days after the change for approval. The date and time of the change to the l&M plan shall be recorded in the engine's operating log. For modifications, the revised l&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the l&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]

**CONDITIONS FOR PERMIT S-43-6-14** 

SPIE(CARMON) Page 1 of 3 08/31/2009

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC

**MAILING ADDRESS:** 

PO BOX 11164

BAKERSFIELD, CA 93369

LOCATION:

LOST HILLS GAS PLANT

NE 15, T.27S, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

1,100 BHP PRECOMPRESSION OPERATION #3 INCLUDING SUPERIOR NATURAL GAS IC ENGINE AND SHARING WITH PERMIT UNIT S-43-4 AND '-5 INLET SCRUBBERS (V28/V29), COMPRESSOR (C-2A), AIR COOLER (AC-6A), SCRUBBER (V-30A) AND MISCELLANEOUS VALVES AND FLANGES

# CONDITIONS

- {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] 1.
- 2. Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- 3. When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- 5. During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201. 4701, and 4702]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill I treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 10./ Distance piece vents shall be inspected and any packing leaks repaired in accordance with Rules 4403, as applicable. [District Rule 4403]
- Pre-compressors with packing leaks shall be shut down within 72 hours and packing leaks repaired prior to re-starting. [District Rule 2201]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 53.5 lb/day. [District Rules 4701 and 47021
- Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]

#### **CONDITIONS FOR PERMIT S-43-6-14**

Page 2 of 3

18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 on BPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]

19. Documentation of fuel gas sulfur content shall be submitted to this with source test results [District NSR Rule]

- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppm on a dry pasis averaged over 15 consecutive minutes. [Rule 4801]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 2080]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2080]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2080]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2080]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. (2993) If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. {2994} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. {2995} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]

#### **CONDITIONS FOR PERMIT S-43-6-14**

Page 3 of 3

- 31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and most sufficient an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
- 34. All compressors associated with this permit unit shall be reciprocating compressors in wet gas service only. In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process. [40 CFR 60.482-3(b), 60.633(f), 60.482-3(a), and 60.632(f)]
- 35. Records shall be kept of leaks from distance piece vents and compliance with required repair timelines pursuant to Rules 4403, as applicable. [District Rule 4403]
- 36. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 2080]



**CONDITIONS FOR PERMIT S-43-7-11** 

MSPECTION Page 1 of 3 08/31/2009

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC

MAILING ADDRESS:

PO BOX 11164

BAKERSFIELD, CA 93389

LOCATION:

LOST HILLS GAS PLANT

NE 15, T.27S, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

EQUIPMENT DESCRIPTION:

825 BHP REFRIGERATION COMPRESSION UNIT #4 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/ PERMIT UNITS S-43-8 & -9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1C), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

# CONDITIONS

- {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active emission unit. [District Rule 1070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. District Rule 2080]
- 4. Source testing is required within 60 days of recommencing operation if a source test has not been performed within the past 24 months. [District Rules 2201, 4701, and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 220]; 4701, and 47021
- This engine shall not be operated after June 1, 2007 for any reason without an ATC including the Rule 4702 emissions limits and any necessary retrofits needed to comply with the applicable requirements of District Rule 4702. [District Rule 47021
- Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule]
- 10. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 11. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 12. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 1070]
- 13. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 14. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 15. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 16. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rule 4701]
- 17. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule]

# CONDITIONS FOR PERMIT S-43-7-11

18. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% 02 and 232 6 ld/day. [District NSR Rule]

19. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 or EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rate]

20. Documentation of fuel gas sulfur content shall be submitted to District with source test results [District NSR Rule]

21. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)]

- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)]
- 23. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 1070]
- 24. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory.

  [District Rule 1070]
- 25. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 1070]
- 26. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1970]
- 27. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 28. (2993) If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 29. (2924) All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 30. {2995} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]

### **CONDITIONS FOR PERMIT S-43-7-11**

Page 3 of 3

- 31. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]
- 32. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District Dustrict But 4702
- 33. The permittee shall update the l&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the l&M plan and must submit an updated l&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the l&M plan shall be recorded in the engine's operating log. For modifications, the revised l&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the l&M plan at any time. [District Rule 4702]
- 34. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]



INSPECTION Page 1 of 3 08/31/2009

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC

**MAILING ADDRESS:** 

PO BOX 11164

BAKERSFIELD, CA 93369

LOCATION: **LOST HILLS GAS PLANT** 

NE 15, T.27S, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

825 BHP REFRIGERATION COMPRESSION UNIT #5 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED W/ PERMIT UNITS S-43-7 AND '-9 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1B), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

# CONDITIONS

- {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active 2: emission unit. [District Rule 1070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. [District Rule 2080]
- Source testing is required within 60 days of recommending operation if a source test has not been performed within the past 24 months. [District Rules 2201, 470], and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content 5. certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 220], ·6. 4701, and 4702]
- 7. Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule]
- 9. Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill 1 treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 1070, 9.5.2]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rules 470] and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87,1 lb/day. [District NSR Rulel
- 17. Carbon monoxide (CQ) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]

#### **CONDITIONS FOR PERMIT S-43-8-11**

Page 2 of 3

18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 of EPA Method 18, referenced as methane, not less than once every 24 months [District NSR Rule]

19. Documentation of fuel gas sulfur content shall be submitted to plistific with source test results [District NSR Rule]

- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppm) on a dry pasis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 1070]
- If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 1070]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 1070]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. {2993} If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. {2994} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. {2995} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]

#### **CONDITIONS FOR PERMIT S-43-8-11**

Page 3 of 3

31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4102]

- 32. The permittee shall update the l&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the later must entire the change for approval. The date and time of the change to the l&M plan shall be recorded in the engine's operating log. For modifications, the revised l&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the l&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]

CONDITIONS FOR PERMIT S-43-9-11

SPECTURATION OF Page 1 of 3 08/31/2009

**LEGAL OWNER OR OPERATOR:** AERA ENERGY LLC

**MAILING ADDRESS:** 

PO BOX 11164

BAKERSFIELD, CA 9336

LOCATION:

LOST HILLS GAS PLANT

NE 15, T.27S, R.21E., M.D.B.& M.

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

825 BHP REFRIGERATION COMPRESSION UNIT #8 INCLUDING NATURAL GAS FIRED IC ENGINE AND SHARED WITH PERMIT UNITS S-43-7 AND '-8 SUCTION SCRUBBER (V-6), ECONOMIZER (V-7), SURGE TANK (V-9), COMPRESSOR (C-1A), OIL TRAP (V-10) & CONDENSERS (AC-1A, AC-1B, AC-1C)

# CONDITIONS

- . l. [118] No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Upon 7 days written notice to the District this engine may be designated as a dormant emission unit or an active 2. emission unit. [District Rule 1070]
- When designated as a dormant emissions unit fuel supply line shall be physically disconnected from the emission unit. 3. [District Rule 2080]
- Source testing is required within 60 days of recommencing operation if a source test has not been performed within the 4. past 24 months. [District Rules 2201, 470], and 4702]
- During non operation of this unit the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201, 4701, and 4702]
- 6. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 220]. 4701, and 4702]
- Operation shall include lube oil head tank (V-26) and I.C. engine fuel scrubber (V-4) shared between permit unit #'s S-7. 43-4, '-5, '-6, '-7, '-8, and '-9. [District NSR Rule]
- Compressor distance piece shall be vented to the vapor recovery system listed on PTO# S-43-3. [District NSR Rule] 8.
- Fuel gas sulfur content shall not exceed 0.3 gr/dscf as H2S. [District NSR Rule]
- 10. Condensate from compressor scrubbers and inlet separators shall be piped to low-pressure condensate vessel of permit S-43-1 or to any tank at the Lost Hill I treating facility served by vapor collection and control system S-1548-120. [District NSR Rule]
- 11. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 1070]
- 12. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0]
- 13. PM-10 emission rate shall not exceed 0.10 lb/hr. [District NSR Rule]
- 14. SO2 emission rate shall not exceed 0.01 lb/hr. [District NSR Rule]
- 15. Oxides of nitrogen (as NO2) emission rate shall not exceed 65 ppmv @ 15% O2 and 40.2 lb/day. [District Rules 4701 and 4702]
- 16. Volatile organic compounds (VOC's) emission rate shall not exceed 304 ppmv @ 15% O2 and 87.1 lb/day. [District NSR Rule]
- 17. Carbon monoxide (CO) emission rate shall not exceed 463 ppmv @ 15% O2 and 232.6 lb/day. [District NSR Rule]

#### **CONDITIONS FOR PERMIT S-43-9-11**

Page 2 of 3

18. District-witnessed source testing for NOx and CO emission rates shall be conducted using CARB Method 100, and District-witnessed source testing for VOC emission rates shall be conducted using EPA Method 25 io EPA Method 18, referenced as methane, not less than once every 24 months. [District NSR Rule]

19. Documentation of fuel gas sulfur content shall be submitted to Wistrict with source less results [District NSR Rule]

- 20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppm on a dry pasis averaged over 15 consecutive minutes. [Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)]
- 21. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)]
- 22. If the IC engine is fired on certified natural gas, then maintain on file copies of all natural gas bills or suppliers certification of sulfur content. [District Rule 1070]
- 23. If the engine is not fired on certified natural gas, then the sulfur content of the gas shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 1070]
- 24. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 1070]
- 25. The operator of an internal combustion (IC) engine shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]
- 26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every calendar quarter (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]
- 27. {2993} If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701 and 4702]
- 28. {2994} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702]
- 29. {2995} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702]
- 30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use an alternate device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. [District Rule 4702]



#### **CONDITIONS FOR PERMIT S-43-9-11**

Page 3 of 3

31. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702]

- 32. The permittee shall update the l&M plan for this engine prior planned change in operation. The permittee must notify the District no later than seven days after changing the later must must entire in updated l&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the l&M plan shall be recorded in the engine's operating log. For modifications, the revised l&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the l&M plan at any time. [District Rule 4702]
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]

#### **CONDITIONS FOR PERMIT S-43-15-8**

Page 1 of 1 E: 08/31/2009

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC

**MAILING ADDRESS:** 

PO BOX 11164

BAKERSFIELD, CA 93389

LOCATION:

LOST HILLS GAS PLANT

NE 15, T.27S, R.21E., M.D.B.& M

LOST HILLS, CA

SECTION: NE15 TOWNSHIP: 278 RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

DORMANT: 5 MMBTU/HR NATURAL GAS-FIRED HOT OIL HEATER

# CONDITIONS

- The fuel supply line shall be physically disconnected from this unit. [1/8: ic: Rule 2080]
- 2. Operator shall provide written notification to the District 7 days prior in a reforming dormancy procedures on active systems or sections, and prior to recommencing operation of dormant. ...... or sections. [District Rule 2080]
- Permittee shall not be required to perform source testing, fuel sulfur content in the reficiency, inspections, or record keeping (except to document non-operation). [District Rule 20:11]
- Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated 12 CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3]
- Total sulfur content of natural gas combusted shall not exceed 0.75 gr. ... C. ... cf. [District NSR Rule] 5.
- 6. Emission rates shall not exceed any of the following: NOx (as NO2): it is MMBtu, or CO: 112 ppmvd @ 3% O2. [District Rule 2201]
- Excess combustion air shall be maintained at no less than 10% unless we are us operation analyzer/controller is utilized. [District NSR Rule]
- The pressure regulator shall be set such that the heater's natural gas such imited to 5.0 MMBtu/hr. [District Rules 2201, 4305, 2.0 and 4306, 2.0]
- The pressure regulator's adjusting screw(s) shall be fixed with wire screw [1] rict NSR Rule]
- 10. Heater shall be fired exclusively on natural gas. [District NSR Rule]
- 11. All required source testing shall conform to the compliance testing procedure described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County 'c : 8.1]
- 12. Upon recommending operation, fuel sulfur content and higher heating the certified by a third party fuel. supplier or each fuel source shall be tested weekly for sulfur content which is the heating value. If compliance with the consecutive weeks for a fuel source. fuel sulfur content limit and sulfur emission limits has been demonstr. then the fuel testing frequency shall be semi-annually. If a semi-annually content source test fails to show compliance, weekly testing shall resume. [District Rule 2080]

# ATTACHMENT II

40 CFR 98 Subpart C - Tables C-1 and C-2

# 40 CFR Table C-1 To Subpart C--Default CO<sub>2</sub> Emission Factors And High Heat Values For Various Types Of Fuel

TABLE C-1 TO SUBPART C--DEFAULT  ${\rm CO_2}$  EMISSION FACTORS AND HIGH HEAT VALUES FOR VARIOUS TYPES OF FUEL

	Default high heat	Default CO2	
Fuel type	value	emission factor	
		,	
Coal and coke	mmBtu/short ton		
Anthracite	•	103.54	
Bituminous	24.93	93.40	
Subbituminous	17.25	97.02	
Lignite	14.21	96.36	
Coke	24.80	102.04	
Mixed (Commercial sector)	21.39	95.26	
Mixed (Industrial coking)	26.28	93.65	
Mixed (Industrial sector)		93.91	
Mixed (Electric Power sector)		9438	
Natural gas	mmBtu/scf	_	
(Weighted U.S. Average)	1.028 x 10 <sup>-3</sup>	53.02	
Petroleum products	mmBtu/gallon		
Distillate Fuel Oil No. 1	·	73.25	
Distillate Fuel Oil No. 2	0.138	73.96	
Distillate Fuel Oil No. 4	0.146	75.04	
Residual Fuel Oil No. 5	0.140	72.93	
Residual Fuel Oil No. 6	0.150	75.10	
Used Oil	0.135	74.00	
Kerosene	0.135	75.20	
Liquefied petroleum gases (LPG)	0.092	62.98	
Propane	0.091	61.46	
Propylene	0.091	65.95	
Ethane	0.069	62.64	
Ethanol	0.084	68.44	
Ethylene	0.100	67.43 64.91	
Isobutalena	0.097 0.103	67.74	
IsobutyleneButane	0.101	65.15	
	0.103	67.73	
Butylene Naphtha ((401 deg F)	0.105	68.02	
Natural Gasoline	0.110	66.83	
Other Oil (>401 deg F)	0.139	76.22	
Pentanes Plus	0.110	70.02	
Petrochemical Feedstocks	0.129	70.97	
Petroleum Coke	0.143	102.41	
Special Naphtha	0.125	72.34	

Unfinished Oils	0,139	74.49
Heavy Gas Oils	0.148	74.92
Lubricants	0.144	74.27
Motor Gasoline	0.125	70.22
Aviation Gasoline	0.120	69.25
Kerosene-Type Jet Fuel	0.135	72.22
Asphalt and Road Oil	0.158	75.36
Crude Oil	0.138	74.49
Other fuels (solid) mm	Btu/short ton	kg CO <sub>2</sub> /mmBtu
Municipal Solid Waste	9.951	90.7
Tires	26.87	85.97
Plastics	38.00	75.00
Petroleum Coke,	30.00	102.41
Other fuels (gaseous)	mmBtu/scf	kg CO <sub>2</sub> /mmBtu
Blast Furnace Gas	$0.092 \times 10^{-3}$	274.32
Coke Oven Gas		46.85
Propane Gas		61.46
Fuel Gas2	$1.388 \times 10^{-3}$	59.00
Biomass fuelssolid mm	Btu/short ton	59.00 kg CO <sub>2</sub> /mmBtu
Biomass fuelssolid mm	Btu/short ton	kg CO <sub>2</sub> /mmBtu
Biomass fuelssolid mm Wood and Wood Residuals	Btu/short ton 15.38	kg CO <sub>2</sub> /mmBtu
Biomass fuels—solid mm  Wood and Wood Residuals	Btu/short ton 15.38 8.25	kg CO <sub>2</sub> /mmBtu 93.80 118.17
Biomass fuelssolid mm Wood and Wood Residuals	Btu/short ton 15.38 8.25 8.00 25.83	kg CO <sub>2</sub> /mmBtu
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton 15.38 8.25 8.00 25.83	93.80 118.17 111.84 105.51
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83 Btu/scf	93.80 118.17 111.84 105.51
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup>	y3.80 118.17 111.84 105.51 kg CO <sub>2</sub> /mmBtu
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup>	kg CO <sub>2</sub> /mmBtu  93.80 118.17 111.84 105.51  kg CO <sub>2</sub> /mmBtu  52.07
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup> Btu/gallon	kg CO <sub>2</sub> /mmBtu  93.80 118.17 111.84 105.51 kg CO <sub>2</sub> /mmBtu  52.07
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup> Btu/gallon  0.084	kg CO <sub>2</sub> /mmBtu  93.80 118.17 111.84 105.51  kg CO <sub>2</sub> /mmBtu  52.07  kg CO <sub>2</sub> /mmBtu  68.44
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup> Btu/gallon  0.084 0.128	kg CO <sub>2</sub> /mmBtu  93.80 118.17 111.84 105.51  kg CO <sub>2</sub> /mmBtu  52.07  kg CO <sub>2</sub> /mmBtu  68.44 73.84
Biomass fuelssolid mm  Wood and Wood Residuals	Btu/short ton  15.38 8.25 8.00 25.83  Btu/scf  0.841 x 10 <sup>-3</sup> Btu/gallon  0.084 0.128 0.125 0.120	kg CO <sub>2</sub> /mmBtu  93.80 118.17 111.84 105.51  kg CO <sub>2</sub> /mmBtu  52.07  kg CO <sub>2</sub> /mmBtu  68.44

<sup>1</sup> Use of this default HHV is allowed only for: (a) Units that combust MSW, do not generate steam, and are allowed to use Tier 1; (b) units that derive no more than 10 percent of their annual heat input from MSW and/or tires; and (c) small batch incinerators that combust no more than 1,000 tons of MSW per year.

<sup>2</sup> Reporters subject to subpart X of this part that are complying with  $\S98.243(d)$  or subpart Y of this part may only use the default HHV and the default CO0732 emission factor for fuel gas combustion under the conditions prescribed in  $\S98.243(d)(2)(i)$  and (d)(2)(ii) and  $(\S98.252(a)(1))$  and (a)(2), respectively. Otherwise, reporters subject to subpart X or subpart Y shall use either Tier 3 (Equation C-5) or Tier 4.

Federal Register Amendments

74 FR 56260 - Oct. 30, 2009; 75 FR 79092 - Dec. 17, 2010

RegScan Citation: 40CFR\_spC\_tbC-1 ©2012 RegScan, Inc.

#### 40 CFR 70-99: Air Programs II | Title 40 | Subchapter C | Part 98 | Subpart C

# 40 CFR Table C-2 to Subpart C--Default $\mathrm{CH_4}$ And $\mathrm{N_2O}$ Emission Factors For Various Types Of Fuel

TABLE C-2 TO SUBPART C--DEFAULT CH<sub>4</sub> AND N<sub>2</sub>O EMISSION FACTORS FOR VARIOUS TYPES OF FUEL

Default CH <sub>4</sub> emission factor CH <sub>4</sub> /mmBtu)	Default N <sub>2</sub> O (kg emission factor (kg N <sub>2</sub> O/mmBtu)
	1.6 x 10 <sup>-03</sup>
$1.0 \times 10^{-03}$	$1.0 \times 10^{-04}$
$3.0 \times 10^{-03}$	$6.0 \times 10^{-04}$
$3.2 \times 10^{-02}$	$4.2 \times 10^{-0.3}$
$3.2 \times 10^{-02}$	$4.2 \times 10^{-03}$
$2.2 \times 10^{-05}$	$1.0 \times 10^{-04}$
$4.8 \times 10^{-04}$	$1.0 \times 10^{-04}$
$3.2 \times 10^{-02}$	$4.2 \times 10^{-03}$
$3.2 \times 10^{-03}$	$6.3 \times 10^{-04}$
1.1 x 10 <sup>-03</sup>	1.1 x 10 <sup>-04</sup>
	emission factor CH <sub>4</sub> /mmBtu)  1.1 x 10 <sup>-02</sup> 1.0 x 10 <sup>-03</sup> 3.0 x 10 <sup>-03</sup> 3.2 x 10 <sup>-02</sup> 3.2 x 10 <sup>-02</sup> 2.2 x 10 <sup>-05</sup> 4.8 x 10 <sup>-04</sup> 3.2 x 10 <sup>-02</sup> 3.2 x 10 <sup>-03</sup>

Note: Those employing this table are assumed to fall under the IPCC definitions of the "Energy Industry" or "Manufacturing Industries and Construction". In all fuels except for coal the values for these two categories are identical. For coal combustion, those who fall within the IPCC "Energy Industry" category may employ a value of  $\lg of CH_4/mmBtu$ .

Federal Register Amendments

74 FR 56260 - Oct. 30, 2009; 75 FR 79092 - Dec. 17, 2010

RegScan Citation: 40CFR\_spC\_tbC-2 ©2012 RegScan; Inc.

# ATTACHMENT III

Calculations

Annual CO2 Emissions							
Emissio	n Factor <sup>2</sup>			CO <sub>2</sub> Equivaler	nt Calculations		
kg CO <sub>2</sub> /MM 53.02 BTU			<u> </u>	1.0	CMD		
				1.0	GWP		
1.11E+07	kg/yr	1.11E+04	Metric Ton/yr	11,072	MT CO <sub>2</sub> e		

Annual N <sub>2</sub> O Emissions						
Emissi	on Factor <sup>3</sup>					
0.0001	kg N₂O/MMBtu		310	GWP		
			210	=		
2.09E+01	kg/yr	2.09E-02 Metric Ton/yr	6.5	MT CO₂e		

	Annual CH <sub>4</sub> Emissions						
Emissi	Emission Factor <sup>3</sup>						
	kg				:		
0.001	CH <sub>4</sub> /MMBtu			2,1	GWP		
2.09E+02	kg/yr	2.09E-01	Metric Ton/yr	4.4	MT CO <sub>2</sub> e		

HAE = AER CO₂e Metric Ton/yr							
N₂O		6	CO₂e Metric Ton/yr				
CH₄		4	CO₂e Metric Ton/yr				
CO <sub>2</sub>	11,0	72	CO₂e Metric Ton/yr				
Totals	11,0	83	CO₂e Metric Ton/yr				
Totals '	11,08	3	CO₂e Metric Ton/yr				

### **NOTES**

2. 40 CFR	198 Subpart C - Table C-1 to Subp	art C—Default CO <sub>2</sub> ; Emis	sion Factors and High Heat
Values fo	r Various Types of Fuel		

<sup>3. 40</sup> CFR 98 Subpart C - Table C-2 to Subpart C—Default CH<sub>4</sub>; and N<sub>2</sub>O Emission Factors for Various Types of Fuel
4. No AQIP for greenhouse CO2e gas calculations

# Aera Energy LLC CO<sub>2</sub> HAE Emission Calculations

Fuel Usage														
	2002 2003					2004			2005	Total 2 years		Annual Average		
	Units in MMCF Units													
Quarterly fuel usage	4Q	1Q <sup>1</sup>	2Q	3Q	4Q	1Q	2Q	3Q	4Q	Jan	MMCF	MMBTU <sup>3</sup>	MCF	MMBTU
S-43-4	9.31	6.33	4.37	8.55	13,40	13.29	5.10	0.86			6.12E+01	6.29E+04	3.06E+01	3.14E+04
S-43-5	9.41	11.52	11.37	6.82	13.20	13.55	5.92	1.79	-	-	7.36E+01	7.56E+04	3.68E+01	3.78E+04
S-43-6	7.27	8,36	9.68	9.90	0,86	0.20	4.17	10.92	-	-	5.14E+01	5.28E+04	2.57E+01	2.64E+04
S-43-7	5.48	9.26	6.88	4.96	7.00	5.64	3.08	0.06			4.24E+01	4.35E+04	2.12E+01	2.17E+04
S-43-8	8.49	4.34	10.77	9.92	11.75	7.81	7.03	5.42	-	-	6.55E+01	6.73E+04	3.28E+01	3.36E+04
S-43-9	8.14	8.75	3.92	6.85	3.87	0.03	1.90	8.05	.=	-	4.15E+01	4.26E+04	2.08E+01	2.13E+04
S-43-15	-	5.83	8.64	8.02	8.53	9.60	8.89	9.21	9.98	2.44	7.11E+01	7.30E+04	3.56E+01	3.65E+04
Totals	48.09	54.39	55.63	55.02	58.61	50.11	36.09	36.31	9.98	2.44	4.07E+02	4.18E+05	2.03E+02	2.09E+05

NOTES

1. S-43-15 2003 Q1 is for February and March only

3. Used 1027 Btu/scf (CARB default) higher heating value

# ATTACHMENT IV

Draft ERC Certificates