



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JAN 3 1 2008

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

**Re: Notice of Receipt of Complete Application**  
**Project Number: S-1080067**

Dear Mr. Winn:

The District has received your application for Emission Reduction Credits (ERCs) from the shutdown of hot oil heater S-43-15 at the Lost Hills Gas Plant, NE 15, T27S, R21E, Lost Hills. Based on our preliminary review, the application appears to be complete. This means that your application contains sufficient information to proceed with our analysis. However, during processing of your application, the District may request additional information to clarify, correct, or otherwise supplement, the information on file.

Please note that your project will be public noticed for a 30-day period at the conclusion of our analysis. It is estimated that the project analysis will take 40 hours, and you will be charged at the weighted hourly labor rate in accordance with District Rule 3010. The current weighted labor rate is \$90.00 per hour, but please note that this fee is revised annually to reflect actual costs and therefore may change. No payment is due at this time; an invoice will be sent to you upon completion of the public notice process.

We will begin processing your application as soon as possible. In general, complete applications are processed on a first-come first-served basis.

If you have any questions, please contact Mr. Thomas Goff at (661) 326-6900.

Sincerely,

David Warner  
Director of Permit Services

Thomas Goff, P.E.  
Permit Services Manager

DW:rue

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

---

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985

**Richard Edgehill**

---

**From:** Winn BT (Brent) at Aera [BTWinn@aeraenergy.com]  
**Sent:** Tuesday, April 01, 2008 2:00 PM  
**To:** Richard Edgehill  
**Subject:** RE: ERC banking projects S43, 1080067 and 1075362

Richard:

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. As you can see from the data, the fuel burned in the hot oil heater did not change significantly after May 2004, but the engines' fuel usage did. Therefore, the quarters prior to May 2004 are more representative of the actual historical operation of the compressors.

There is no technical reason why emissions from the hot oil heater prior to May 2004 would be more representative of actual historical operation, therefore the two calendar years prior to actual shutdown of the heater were selected.

Thanks....

-B. Winn

-----Original Message-----

**From:** Richard Edgehill [mailto:Richard.Edgehill@valleyair.org]  
**Sent:** Tuesday, April 01, 2008 11:53 AM  
**To:** Winn BT (Brent) at Aera  
**Subject:** ERC banking projects S43, 1080067 and 1075362

Brent: The baseline period selected for the hot oil heater (project 1080067) is February 2003 through January 2005 (includes 4th quarter 2004) and for the compressors (project 1075362) is October 2002 September 2004 (does not include 4th quarter 2004). I need to address why there is a difference in baseline period for the EE. Did the hot oil heater operate longer than the IC engine-driven compressors. Clearly 4th qtr 2004 fuel usage for the hot oil heater had not "tapered off" but compressor operation was considered to be "not representative of normal operation" in 4th quarter 2004 i.e. terminal downtime had begun. Apparently shut down of all of the gas plant equipment did not occur simultaneously - please elaborate on why the oil heater operated longer than the compressors i.e. into 4th qtr 2004.

Thanks

# ERC PROJECT ROUTING FORM

PROJECT NUMBER: 1080067 ORIGINATING FACILITY ID: S-43

NEW ERC #'s: \_\_\_\_\_

CURRENT OWNER/APPLICANT NAME: Aera Energy LLC

DATE RECEIVED: January 10, 2008

PRELIMINARY REVIEW	ENGR	DATE	SUPR	DATE
A. Application Deemed Incomplete				
B. Application Deemed Complete	RUE	1-30-08	UG	1/31/08
180th Day for Developmental Projects				
C. Application Pending Denial				
D. Application Denied				

ENGINEERING EVALUATION	INITIAL	DATE
E. Engineering Evaluation Complete	RUE	3-25-08
F. Supervising Engineer Approval	AP	3-25-08
H. Permit Services Regional Manager Approval	UG	4/1/08

DIRECTOR REVIEW: [ ] Not Required [  ] Required

**PROJECTS REQUIRING PUBLIC NOTIFICATION**

**--PRELIMINARY DECISION:**

	Date emailed to Fresno.
	Date of distribution to applicant, EPA, and CARB.
	Date of contact with EPA regarding comments on project.
	Date of contact with CARB regarding comments on project.

**--FINAL DECISION:**

	Date emailed to Fresno.
	Date of distribution to applicant, EPA, and CARB.

## Leonard Scandura

---

**From:** Allan Phillips  
**Sent:** Monday, January 14, 2008 8:04 AM  
**To:** Leonard Scandura  
**Subject:** FW:



### Emission el Records

FYI. Forward this to whoever you assign S-43, S-1080067 to. Thanks.

-----Original Message-----

From: Winn BT (Brent) at Aera [mailto:BTWinn@aeraenergy.com]  
Sent: Friday, January 11, 2008 8:40 AM  
To: Allan Phillips  
Cc: Tom Goff  
Subject:

Allan:

Yesterday I submitted an ERC application for Lost Hills gas plant - Permit S-43-15 (hot oil heater). Attached is additional raw data (Meter readings, emission inventory records, etc) that were used in the calculation of the historical emissions. Tom Goff suggested that this might be helpful in making this a complete application. January 14 will make 180 days since the permanent emission reduction occurred.

Thanks,

Brent Winn  
Aera Energy LLC  
Environmental Engineer - Belridge  
Office: 661-665-4363 Pager: 661-747-8963  
Cell: 661-747-8963 Home: 661-587-5181  
FAX: 661-665-7437 E-Mail: btwinn@aeraenergy.com

PR	UNITS	PRO_DES	PM_EF	PM_EMS	CO_EF	CO_EMS	SOX_EF	SOX_EMS	NOX_EF	NOX_EMS	TOG_EF	TOG_EMS	FROG	VOC
30.73	MILLION CUBIC FEET BURNED	HEATER NAT GAS	7.60	0.12	172.18	2.65	0.60	0.01	83.57	1.28	13.87	0.21	0.40	0.08
34.20	MILLION CUBIC FEET BURNED	HEATER NAT GAS	7.60	0.13	172.18	2.94	0.60	0.01	83.57	1.43	11.00	0.19	0.50	0.09
37.67	MILLION CUBIC FEET BURNED	HEATER NAT GAS	7.60	0.14	172.18	3.24	0.60	0.01	83.57	1.57	11.00	0.21	0.50	0.10
2.44	MILLION CUBIC FEET BURNED	HEATER NAT GAS	7.60	0.01	172.18	0.21	0.60	0.00	83.57	0.10	11.00	0.01	0.50	0.01

		2000		2001		2002		2003		2004		2005	
		January		February									
<i>Lost/Hills Gas Plant and Field Meters</i>		<i>MSCF</i>	<i>MMBtu/mcf</i>	<i>MSCF</i>	<i>MMBtu/mcf</i>	<i>MSCF</i>	<i>MMBtu/mcf</i>	<i>MSCF</i>	<i>MMBtu/mcf</i>	<i>MSCF</i>	<i>MMBtu/mcf</i>	<i>MSCF</i>	<i>MMBtu/mcf</i>
9355	PLANT HEATER FUEL	3,355	1,0780	3,132	1,06	3,359							
9355	PLANT HEATER FUEL	3,984	1,111	3,645	1,093	3,759							
9355	PLANT HEATER FUEL	2,888	1,146	2,660	1,146	2,752							
9355	PLANT HEATER FUEL	3,188	1,105	2,794	1,105	3,032							
9355	PLANT HEATER FUEL	3,253	1,122	3,148	1,120	3,197							
9355	PLANT HEATER FUEL	2,441	1,088	0		0							

2002												
Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units Classification Code	NOX lb/Unit	TOG lb/Unit	Fraction of NOX	VOC lb/Unit	SOX lb/Unit	CO lb/Unit	PM lb/Unit	PM10 lb/Unit
15	1	HEATER NAT GAS	30,720	CUBIC FEET	83.57	13.87	0.50	5.50	0.50	172.18	N/A	7.60
				31000414	1.28	0.21		0.11	0.81	2.65		0.42

Tons /Yr.

2002																																
CO	REGION	FAC ID	DEV	PRO	SUBCO	SEC	TWN	RNG	LEASE	SCC	MAX PR	PR	UNITS	CON	PRO DES	S	PM EF	PM EMS	CO EF	CO EMS	SOX EF	SOX EMS	NOX EF	NOX EMS	TOG EF	TOG EMS	FROG	FROG EMS	CO EF	CO EMS	CH4 EF	CH4 EMS
15	S	43	15	1		0	0	0	0	31000414		30,720	MILLION CUBIC FEET		HEATER NAT GAS		7.60	0.12	172.18	2.65	0.60	0.01	83.57	1.28	13.87	0.21	0.40	0.08	120000	2382.583	2.3	0.045666

2003																																
CO	REGION	FAC ID	DEV	PRO	SUBCO	SEC	TWN	RNG	LEASE	SCC	MAX PR	PR	UNITS	CON	PRO DES	S	PM EF	PM EMS	CO EF	CO EMS	SOX EF	SOX EMS	NOX EF	NOX EMS	TOG EF	TOG EMS	FROG	FROG EMS	CO EF	CO EMS	CH4 EF	CH4 EMS
15	S	43	15	1		0	0	0	0	31000414		34,202.8	MILLION CUBIC FEET		HEATER NAT GAS		7.60	129.97	172.18	2844.52	0.60	10.26	83.57	1429.16	13.87	237.22	0.40	94.06				

2003																																
CO	REGION	FAC ID	DEV	PRO	SUBCO	SEC	TWN	RNG	LEASE	SCC	MAX PR	PR	UNITS	CON	PRO DES	S	PM EF	PM EMS	CO EF	CO EMS	SOX EF	SOX EMS	NOX EF	NOX EMS	TOG EF	TOG EMS	FROG	FROG EMS	CO EF	CO EMS	CH4 EF	CH4 EMS
15	S	43	15	1		0	0	0	0	31000414		34,202.8	MILLION CUBIC FEET BURNED		HEATER NAT GAS		7.60	0.13	172.18	2.94	0.50	0.01	83.57	1.43	11.00	0.18	0.50					0.09

2004																																
CO	REGION	FAC ID	DEV	PRO	SUBCO	SEC	TWN	RNG	LEASE	SCC	MAX PR	PR	UNITS	CON	PRO DES	S	PM EF	PM EMS	CO EF	CO EMS	SOX EF	SOX EMS	NOX EF	NOX EMS	TOG EF	TOG EMS	FROG	FROG EMS	CO EF	CO EMS	CH4 EF	CH4 EMS
15	S	43	15	1		0	0	0	0	31000414		37.67	MILLION CUBIC FEET BURNED		HEATER NAT GAS		7.60	0.14	172.18	3.24	0.60	0.01	83.57	1.67	11.00	0.21	0.50	0.10	120000	2260.34	2.3	0.04

2005																																
CO	REGION	FAC ID	DEV	PRO	SUBCO	SEC	TWN	RNG	LEASE	SCC	MAX PR	PR	UNITS	CON	PRO DES	S	PM EF	PM EMS	CO EF	CO EMS	SOX EF	SOX EMS	NOX EF	NOX EMS	TOG EF	TOG EMS	FROG	FROG EMS	CO EF	CO EMS	CH4 EF	CH4 EMS
15	S	43	15	1		0	0	0	0	31000414		2.44	MILLION CUBIC FEET BURNED		HEATER NAT GAS		7.60	0.01	172.18	0.21	0.60	0.00	83.57	0.10	11.00	0.01	0.50	0.00	120000	146.46	2.3	0.09

83.75 lb/mmcf  
 1050 mmbtu/mmcf  
 0.079762 lb/mmbtu

		January		February		March		April		May		June		July		August		September		October		November		December	
Lost Hills Gas Plant and Field Meters		MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf	MSCF	MMBtu/mscf
9355	PLANT HEATER FUEL	3,355	1,0780	3,132	1,06	3,359	1,0856	2,882	1,0937	3,143	1,0682	2,560	0	2,618	0	2,642	0	2,705	0	3,157	1,0786	3,282	1,095	3,927	1,0966
2000																									
9355	PLANT HEATER FUEL	3,984	1,111	3,645	1,093	3,759	1,123	3,450	1,1147	3,194	1,1261	1,935	1,1298	2,626	1,0925	2,306	1,1538	2,544	1,0855	2,628	1,129	2,621	1,144	2,768	1,144
2001																									
9355	PLANT HEATER FUEL	2,888	1,146	2,660	1,146	2,752	1,128	3,023	1,103	2,862	1,131	2,128	1,099	2,033	1,099	2,266	1,099	2,271	1,0930	2,475	1,098	2,471	1,099	2,899	1,089
2002																									
9355	PLANT HEATER FUEL	3,188	1,105	2,794	1,105	3,032	1,105	2,759	1,106	3,136	1,112	2,742	1,15	2,651	1,174	2,756	1,176	2,615	1,1780	2,725	1,176	2,833	1,129	2,971	1,108
2003																									
9355	PLANT HEATER FUEL	3,253	1,122	3,148	1,120	3,197	1,102	3,159	1,102	3,115	1,102	2,614	1,101	3,000	0	3,124	1,096	3,083	1,11	3,188	1,099	3,420	1,099	3,371	1,09
2004																									
9355	PLANT HEATER FUEL	2,441	1,088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005																									
9355	PLANT HEATER FUEL	2,441	1,088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

→ Σ = 35,460 MSCF  
39709.09



Year	Description	2000		2001		2002		2003		2004		2005	
		MSP	MSP/MB	MSP	MSP/MB	MSP	MSP/MB	MSP	MSP/MB	MSP	MSP/MB	MSP	MSP/MB
2000	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2001	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2002	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2003	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2004	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2005	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032
2006	COAST GUARD VESSEL	1,770	2,132	1,700	2,068	1,682	2,032	1,682	2,032	1,682	2,032	1,682	2,032


# San Joaquin Valley Air Pollution Control District

## Application for

**RECEIVED**  
**JAN 10 2008**  
SJVAPCD  
Southern Region

EMISSION REDUCTION CREDIT (ERC)

CONSOLIDATION OF ERC CERTIFICATES

1. ERC TO BE ISSUED TO: <b>Aera Energy LLC</b>		Facility ID: <u>S - 43</u> (if known)				
2. MAILING ADDRESS: Street/P.O. Box: _____ P.O. Box <b>11164</b>						
City: <u>Bakersfield</u> State: <u>CA</u> Zip Code: <u>93389-1164</u>						
3. LOCATION OF REDUCTION: Street: _____ City: <u>Lost Hills</u> <u>NE 1/4 SECTION 15 TOWNSHIP 27S RANGE 21E</u>		4. DATE OF REDUCTION:  <b>July 19, 2007</b>				
5. PERMIT NO(S): <b>S-43-15</b>		EXISTING ERC NO(S): _____				
6. METHOD RESULTING IN EMISSION REDUCTION:  <input checked="" type="checkbox"/> SHUTDOWN <input type="checkbox"/> RETROFIT <input type="checkbox"/> PROCESS CHANGE <input type="checkbox"/> OTHER  DESCRIPTION: <b>Lost Hills Gas Plant was permanently shut down. Equipment was sold to, and is in process of being removed by, Crimson Resources Management.</b>						
<small>(Use additional sheets if necessary)</small>						
7. REQUESTED ERCs (In Pounds Per Calendar Quarter):						
	VOC	NO <sub>x</sub>	CO	PM10	SO <sub>x</sub>	OTHER
1ST QUARTER	46.1	343.3	703.5	63.7	0.0	
2ND QUARTER	43.4	323.2	662.4	59.9	0.0	
3RD QUARTER	42.6	317.8	651.3	58.9	0.0	
4TH QUARTER	45.8	341.4	699.6	63.3	0.0	
8. SIGNATURE OF APPLICANT: 		TYPE OR PRINT TITLE OF APPLICANT: <b>Environmental Engineer</b>				
9. TYPE OR PRINT NAME OF APPLICANT: <b>Brent Winn</b>				DATE: <b>1/9/08</b>	TELEPHONE NO: <b>(661) 665-4363</b>	

FOR APCD USE ONLY:

DATE STAMP	FILING FEE RECEIVED: \$ <u>1050-</u> DATE PAID: <u>Pm 1/10/08</u> PROJECT NO.: <u>S-1090067</u> FACILITY ID: <u>S-43</u>
------------	--

*ERC application S-43*



January 8, 2008

San Joaquin Valley APCD  
2700 "M" Street, Suite 275  
Bakersfield, CA 93301

RECEIVED  
JAN 10 2008  
SJV APCD  
South Region

**ATTN:** Mr. Thomas E. Goff, P.E.

**SUBJECT:** Emission Reduction Credits (ERCs) Application  
Shutdown of Lost Hills Section 15 Gas Plant (S-43)

Attached is an application for banking of emission reduction credits (ERC's) associated with shutdown of the Lost Hills Section 15 Gas Plant (Facility ID S-43). Aera sold the gas plant equipment to Crimson Resource Management (Crimson), effective July 19, 2007. Crimson did not elect to purchase the associated air permits, and Aera surrendered the permits on August 22, 2007. Equipment removal is currently in process and ultimately all of the equipment will be removed from the site, either by Aera or Crimson.

This ERC application focuses on the plant's hot oil heater (permit S-43-15).

Should you have any questions or need further information, please contact me at (661) 665-4363.

Sincerely,

A handwritten signature in black ink that reads "Brent Winn". The signature is written in a cursive, flowing style.

Brent Winn  
Environmental Engineer - Belridge

**Emission Reduction Credit Application – Hot Oil Heater - PTO S-43-15  
Lost Hills Section 15 Gas Plant  
Supplemental Application Information**

**Rule 2301 Requirements**

4.2 Emissions Reductions Occurring After September 19, 1991	
For emission reductions occurring after September 19, 1991, the following criteria must be met in order to deem such reductions eligible for banking:	<b><u>Comments</u></b>
4.2.2 AERs are calculated in accordance with the calculation procedures of Rule 2201 (New and Modified Stationary Source Review Rule) and comply with the definition of AERs of Rule 2201 (New and Modified Stationary Source Review Rule). Adjustment to emissions reductions for the Community Bank shall be made at the time the reductions are quantified pursuant to Rule 2201 (New and Modified Stationary Source Review Rule).	<i>Rule 2201 Requirements are addressed below.</i>
4.2.3 An application for ERC has been filed no later than 180 days after the emission reductions occurred.	<i>Aera sold the gas plant equipment to Crimson Resource Management, effective July 19, 2007. This is the date that Aera no longer possessed legal authority to operate the plant equipment. The deadline for submittal of ERC applications is therefore January 14, 2008. To verify that an earlier "de facto" reduction had not occurred, SJVAPCD Inspector Sam Parks inspected the facility on August 16th, 2007 and verified that the plant equipment had not been removed and the plant was still capable of being re-started from "dormant" status.</i>

**Emission Reduction Credit Application – Hot Oil Heater - PTO S-43-15  
Lost Hills Section 15 Gas Plant  
Supplemental Application Information**

**Rule 2301 Requirements (continued)**

<p>4.2.1 The emission reductions are real, surplus, permanent, quantifiable, and enforceable;</p>	<p><i><b>Real:</b> The subject emission reductions are the result of actual physical shutdown and removal of equipment associated with the Lost Hills Gas Plant. The hot oil heater served internal plant processes that ceased operation in January 2005 and for which legal authority to operate was permanently ended on July 19, 2007.</i></p>
	<p><i><b>Surplus:</b> The hot oil heater that is the subject of this application had been de-rated to 5 MMBTU/hr for exemption from Rule 4306 emission control requirements and therefore was not subject to Rule 4306 limits. Rule 4307 ( Boilers, Steam Generators, And Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr) was adopted on December 15, 2005 with limits of 30 ppm NOx and 400 ppm CO. These limits are the same as those specified in South Coast Rule 1146. Therefore, any historical NOx emissions in excess of 30 ppm cannot be considered surplus. AP-42 Table 1.4-1 lists a CO emission factor of 0.08 lb/MMBTU for natural gas-fired heaters rated at less than 100 MMBTU/hr. This is equivalent to approximately 100 ppm CO, lower than the 400 ppm CO limit specified in Rules 4307 and SCAQMD 1146. Therefore, since this heater has never been source tested, the most conservative available emission factor for CO would be from the AP-42 reference. Other emissions (PM10, VOC, and SOx) from this size of unit are not subject to Federal or State prohibitory rules and therefore would be considered "surplus".</i></p>
	<p><i><b>Permanent:</b> The subject emission reductions are the result of actual physical shutdown and removal of equipment associated with the Lost Hills Gas Plant. The plant was shut down and Aera sold the gas plant equipment to Crimson Resource Management (Crimson), effective July 19, 2007. Crimson did not elect to purchase the associated air permits, and Aera surrendered the permits on August 22, 2007.</i></p>
	<p><i><b>Quantifiable:</b> The emission reductions are quantifiable using actual fuel gas records, prohibitory rule limits, and emission factors derived from EPA-approved documents (AP-42, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources) Quantification of the emissions is presented below and in Attachment 1.</i></p>
	<p><i><b>Enforceable:</b> Crimson Resources did not elect to purchase the air permits associated with the gas plant, and Aera surrendered the permits on August 22, 2007. These emission reductions are enforceable by the fact that the permits have been surrendered. The reductions will be further enforceable by an inspection of the plant site after equipment removal is complete.</i></p>

**Emission Reduction Credit Application – Hot Oil Heater - PTO S-43-15  
Lost Hills Section 15 Gas Plant  
Supplemental Application Information**

**Rule 2201 Requirements**

3.2 Actual Emissions Reduction (AER): the decrease of actual emissions, compared to the Baseline Period, from an emissions unit and selected for use as emission offsets or ERC banking. AER shall meet the following criteria:	
3.2.1 Shall be real, enforceable, quantifiable, surplus, and permanent.	<i>These criteria are addressed above under Rule 2301 Requirements.</i>
3.2.2 To be considered surplus, AER shall be in excess, at the time the application for an Emission Reduction Credit or an Authority to Construct authorizing such reductions is deemed complete, of any emissions reduction which:	
3.2.2.1 Is required or encumbered by any laws, rules, regulations, agreements, orders, or	<i>The shutdown of these engines was not required or precipitated by any laws, rules, regulations, agreements, or orders.</i>
3.2.2.2 Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or	<i>These emission reductions are not attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan.</i>
3.2.2.3 Is proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.	<i>The hot oil heater would have been subject to SJVAPCD Rule 4307 if it had not been rendered dormant prior to adoption of that rule. SCAQMD Rule 1146 NOx and CO emission limits are identical to those specified in Rule 4307. Rule 1146 has been incorporated into the SIP. Therefore, emission factors are adjusted accordingly in this application.</i>

**Emission Reduction Credit Application – Hot Oil Heater - PTO S-43-15  
Lost Hills Section 15 Gas Plant  
Supplemental Application Information**

**Rule 2201 Requirements (continued)**

<p>4.12 Actual Emissions Reductions (AER) Calculations: Actual Emissions Reductions shall be calculated, on a pollutant-by-pollutant basis, as follows:</p> <p>AER = HAE - PE2</p>	
<p>HAE = Historic Actual Emissions</p>	<p><i>HAE calculations are presented in Attachment 1.</i></p>
<p>PE2 = Post-project Potential to Emit</p>	<p><i>Post-project potential to emit is zero since the subject emission unit has been permanently shut down and permit surrendered.</i></p>
<p>4.12.1 Prior to banking, AER shall be discounted by 10 percent (10%) for Air Quality Improvement Deduction, and shall comply with all applicable provisions of Rule 2301 (Emission Reduction Credit Banking).</p>	<p><i>The AQI deduction is reflected in the HAE calculations presented in Attachment 1.</i></p> <p><i>Rule 2301 requirements are addressed above.</i></p>

**Emission Reduction Credit Application – Hot Oil Heater - PTO S-43-15  
Lost Hills Section 15 Gas Plant  
Supplemental Application Information**

Following are the AER's after adjusting for SQAQMD Rule 1146 and the 10% AQI deduction:

<b>Pounds Per Quarter</b>	<b>VOC</b>	<b>NOx</b>	<b>CO</b>	<b>PM10</b>	<b>SOx</b>
<b>1ST QUARTER</b>	46.1	343.3	703.5	63.7	0.0
<b>2ND QUARTER</b>	43.4	323.2	662.4	59.9	0.0
<b>3RD QUARTER</b>	42.6	317.8	651.3	58.9	0.0
<b>4TH QUARTER</b>	45.8	341.4	699.6	63.3	0.0



## **ATTACHMENT 1**

### **Calculation of Historical Actual Emissions (HAE)**

## **ATTACHMENT 2**

### **Gas Analysis and Emission Factors**



Attention: Mr. Mike Brown  
 Aera Energy LLC  
 P O Box 38  
 Lost Hills CA 93249

Sampled: 5/14/2003  
 Submitted: 5/16/2003  
 Analyzed: 5/16/2003  
 Reported: 5/19/2003

**Gas Analysis by Chromotography - ASTM D 3588-91**

Meter#: 9416 Lab No.: 030473-2  
 Description: Time: 3:55 PM  
 Facility: Lost Hills Condition: Normal

Component	Mole %	Weight %	G/MCF	
Oxygen	ND	0.00		
Nitrogen	0.76	1.08		
Carbon Dioxide	1.79	3.99		
Hydrogen	ND	0.00		
Carbon Monoxide	ND	0.00		
Methane	83.61	68.05		
Ethane	8.98	13.69		
Propane	2.40	5.37	0.662	
iso-Butane	0.21	0.61	0.068	
n-Butane	1.79	5.27	0.565	
iso-Pentane	0.13	0.47	0.047	
n-Pentane	0.05	0.18	0.018	
Hexanes Plus	0.30	1.29	0.122	
Totals	100.00	100.00	1.482	
Specific Volume, ft <sup>3</sup> /lb	19.24	Values Corrected		
Compressibility (Z) Factor	0.9970	for Compressibility	CHONS	Weight %
Specific Gravity, Calculated	0.6806	0.6824	Carbon	73.842
			Hydrogen	22.177
<b>GROSS</b>			Oxygen	2.901
BTU/ft <sup>3</sup> Dry	1149.9	1153.4	Nitrogen	1.080
BTU/ft <sup>3</sup> Wet	1129.8	1133.2	Sulfur	0.000
BTU/lb Dry	22124.8	22191.9	F FACTOR @	8675
BTU/lb Wet	21737.6	21803.6	68 deg F, dsct/MMBTU	
<b>NET</b>			F FACTOR @	8545
BTU/ft <sup>3</sup> Dry	1040.8	1044.0	60 deg F, dsct/MMBTU	
BTU/ft <sup>3</sup> Wet	1022.6	1025.7		
BTU/lb Dry	20025.9	20086.7		
BTU/lb Wet	19675.4	19735.1		
Hydrogen Sulfide ppm		Tr<1	Method	GC/FPD
Total Sulfur ppm		Tr<1	Method	ASTMD 3246
Hydrocarbon Dew Point, deg F		Not Tested	Method	Bureau of Mines
Moisture, lbs H <sub>2</sub> O/MMCF		Not Tested	Method	Bureau of Mines

ND: None Detected

Tr: Trace

ppm=>btu

	SELECTION #
COAL (ANTHRACITE)	0
COAL (BITUMINOUS)	1
COAL (LIGNITE)	2
OIL (CRUDE, RESIDUAL, OR DISTILLATE)	3
GAS (NATURAL)	4
GAS (PROPANE)	5
GAS (BUTANE)	6
WOOD	7
WOOD BARK	8
MUNICIPAL SOLID WASTE	9

STANDARD O2 CORRECTION FOR EXTERNAL COMBUSTION IS 3%	
Type of fuel (use table above)	4 GAS
O2 correction (i.e., 3%)	3 %
Enter concentrations	
NOx	30 ppmv
CO	101.015 ppmv
VOC (as methane)	11.57 ppmv

CALCULATED EQUIVALENT LB/MMBTU VALUES	
NOx	0.0363 LB/MMBTU
CO	0.0744 LB/MMBTU
VOC (as methane)	0.0049 LB/MMBTU

1129.8 MMBTU/MMSCF

0.000885 MMscf/MMBTU

40.99	lb NOx /mmscf
84.00	lb CO/mmscf
5.50	lb VOC/mmscf

pV = R*T	
pressure (p)	1 atm
universal gas constant (R*)	0.7302 atm-scf/lbmole-oR
temperature (oF)	68 oF
calculated	
molar specific volume (V)	385.3 scf/lbmole
Molecular weights	
NOx	46 lb/lb-mole
CO	28 lb/lb-mole
VOC (as methane)	16 lb/lb-mole

F FACTORS FROM EPA METHOD 19		
COAL (ANTHRACITE)	10100 DSCF/MMBTU	COAL
COAL (BITUMINOUS)	9780 DSCF/MMBTU	COAL
COAL (LIGNITE)	9860 DSCF/MMBTU	COAL
OIL (CRUDE, RESIDUAL, OR DISTILLATE)	9160 DSCF/MMBTU	OIL
GAS (NATURAL)	8675 DSCF/MMBTU	GAS
GAS (PROPANE)	8710 DSCF/MMBTU	GAS
GAS (BUTANE)	8710 DSCF/MMBTU	GAS
WOOD	9240 DSCF/MMBTU	WOOD
WOOD BARK	9600 DSCF/MMBTU	WOOD BARK
MUNICIPAL SOLID WASTE	9570 DSCF/MMBTU	SOLID WASTE
F FACTOR USED IN CALCULATIONS	8675 DSCF/MMBTU	GAS

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION<sup>a</sup>

Pollutant	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
CO <sub>2</sub> <sup>b</sup>	120,000	A
Lead	0.0005	D
N <sub>2</sub> O (Uncontrolled)	2.2	E
N <sub>2</sub> O (Controlled-low-NO <sub>x</sub> burner)	0.64	E
PM (Total) <sup>c</sup>	7.6	D
PM (Condensable) <sup>c</sup>	5.7	D
PM (Filterable) <sup>c</sup>	1.9	B
SO <sub>2</sub> <sup>d</sup>	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

<sup>b</sup> Based on approximately 100% conversion of fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/10<sup>6</sup> scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO<sub>2</sub>, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10<sup>4</sup> lb/10<sup>6</sup> scf.

<sup>c</sup> All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM<sub>10</sub>, PM<sub>2.5</sub> or PM<sub>1</sub> emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

<sup>d</sup> Based on 100% conversion of fuel sulfur to SO<sub>2</sub>. Assumes sulfur content is natural gas of 2,000 grains/10<sup>6</sup> scf. The SO<sub>2</sub> emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO<sub>2</sub> emission factor by the ratio of the site-specific sulfur content (grains/10<sup>6</sup> scf) to 2,000 grains/10<sup>6</sup> scf.

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>) AND CARBON MONOXIDE (CO)  
FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO <sub>x</sub> <sup>b</sup>		CO	
	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS) <sup>c</sup>	280	A	84	B
Uncontrolled (Post-NSPS) <sup>c</sup>	190	A	84	B
Controlled - Low NO <sub>x</sub> burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO <sub>x</sub> burners	50	D	84	B
Controlled - Low NO <sub>x</sub> burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> Expressed as NO<sub>2</sub>. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO<sub>x</sub> emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO<sub>x</sub> emission factor.

<sup>c</sup> NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

Aera Energy LLC  
Emission Reduction Credit Application  
Lost Hills Section 15 Gas Plant  
Hot Oil Heater - PTO S-43-15

Monthly Fuel Meter Readings

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<i>Lost Hills Gas Plant and Field Meters</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>
2000	PLANT HEATER FUEL (Meter 9355)	3,355	3,132	3,359	2,882	3,143	2,560	2,618	2,642	2,705	3,157	3,282	3,927
2001	PLANT HEATER FUEL (Meter 9355)	3,984	3,645	3,759	3,450	3,194	1,935	2,626	2,306	2,544	2,628	2,621	2,768
2002	PLANT HEATER FUEL (Meter 9355)	2,888	2,660	2,752	3,023	2,862	2,128	2,033	2,266	2,271	2,475	2,471	2,899
2003	PLANT HEATER FUEL (Meter 9355)	3,188	2,794	3,032	2,759	3,136	2,742	2,851	2,756	2,615	2,725	2,833	2,971
2004	PLANT HEATER FUEL (Meter 9355)	3,253	3,148	3,197	3,159	3,115	2,614	3,000	3,124	3,083	3,188	3,420	3,371
2005	PLANT HEATER FUEL (Meter 9355)	2,441	0	0	0	0	0	0	0	0	0	0	0

Representative Period: 2003 & 2004

1Q Fuel Totals (mcf)	
2003	9014.0
2004	9598.0
Average	9306.0

2Q Fuel Totals (mcf)	
2003	8636.6
2004	8888.0
Average	8762.3

3Q Fuel Totals (mcf)	
2003	8022.0
2004	9207.0
Average	8614.5

4Q Fuel Totals (mcf)	
2003	8529.0
2004	9979.0
Average	9254.0

	Emission Factor (lb/mmcf)	Quarterly Emissions (pounds)				
		1Q	2Q	3Q	4Q	
PM <sub>10</sub>	7.6	70.7	66.6	65.5	70.3	AP-42 Table1.4-2 (total PM)
CO	84.0	781.7	736.0	723.6	777.3	Equivalent to 101 ppm CO (less than 400 ppm CO limit in Rule 1146 )
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0	Sulfur content in fuel gas is negligible (< 1 ppm)
NO <sub>x</sub>	41.0	381.5	359.2	353.1	379.3	Based on 30 ppm NO <sub>x</sub> (Rule 1146 limit)
VOC	5.5	51.2	48.2	47.4	50.9	AP-42 Table1.4-2

	Emission Factor (lb/mmcf)	Quarterly Emissions (pounds)			
		1Q	2Q	3Q	4Q
After 10% AQI Reduction:					
PM <sub>10</sub>	7.6	63.7	59.9	58.9	63.3
CO	84.0	703.6	662.4	651.3	699.6
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0
NO <sub>x</sub>	41.0	343.3	323.2	317.8	341.4
VOC	5.5	46.1	43.4	42.6	45.8

**ATTACHMENT V**  
Draft ERC Certificates



San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-1**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B.& M.  
LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
46 lbs	43 lbs	43 lbs	46 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Saadeghi, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-2**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B.& M.  
LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
344 lbs	323 lbs	318 lbs	341 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Sayed Saadeh, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-3**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
704 lbs	662 lbs	652 lbs	699 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Saadpour, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-4**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

**For PM10 Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
64 lbs	60 lbs	59 lbs	63 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Sayed Saadeh, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

# 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:** Richard Edgehill, Air Quality Engineer  
**Date:** March 24 2008  
  
**Lead Engineer:** Allan Phillips, Supv. AQE *AP*  
**Date:** *4/3/08*  
  
**Project Number:** S-43, 1080067  
  
**ERC Certificate #s:** S-2782-1, '-2, '-3, and '-4  
  
**Date Received:** January 10, 2008  
**Date Complete:** January 31, 2008

### I. SUMMARY

Aera Energy LLC (Aera) has applied for Emission Reduction Credits (ERCs) for the shutdown of a natural gas-fired hot oil heater at the Section 15 Gas Plant. The Permit to Operate (PTO S-43-15-8) was canceled August 27, 2007. The application for ERCs is timely because it was filed within 180 days following the shut down pursuant to Rule 2301, "Emission Reduction Credit Banking", Section 4.2.3.

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

<b>Emissions Reductions Qualified for Banking (lbs)</b>				
	<b>1<sup>st</sup> Qtr</b>	<b>2<sup>nd</sup> Qtr</b>	<b>3<sup>rd</sup> Qtr</b>	<b>4<sup>th</sup> Qtr</b>
<b>NOx</b>	329	323	318	341
<b>PM10</b>	61	60	58	63
<b>CO</b>	675	662	652	699
<b>VOCs</b>	44	43	42	46

Please note that the entire gas plant was shutdown in 2007. An ERC application for the shutdown of several IC engine compressors is pending project S43, 1075362.

## II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (September 21, 2006)  
Rule 2301 Emission Reduction Credit Banking (December 17, 1992)

## III. PROJECT LOCATION

The hot oil heater is 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 has been shutdown and will be removed from the site. The permit for the 5 MMBtu/hr natural gas-fired hot oil heater (S-43-15-8) was surrendered August 27, 2007.

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

## V. CALCULATIONS

### A. Assumptions and Emissions Factors

NO<sub>x</sub>, CO, and PM<sub>10</sub> HAE is calculated based on the fuel use (mcf) multiplied times the emissions factors (lb/MMscf).

HHV = 1129.8 Btu/scf (laboratory analysis)

F-Factor for Natural Gas: 8,545 dscf/MMBtu @ 60°F (laboratory analysis)

The laboratory analysis is included in **Attachment II**.

### B. Emissions Factors (EF)

NO<sub>x</sub>: 30 ppmv @ 3% O<sub>2</sub> (Rule 4307 Table 1 Requirement)

$$30 \text{ ft}^3/10^6 \text{ ft}^3 \times 20.9/17.9 \times 8545 \text{ ft}^3/\text{MMBtu} \times \text{lbmol}/379 \text{ ft}^3 \times 46 \text{ lb}/\text{lbmol} \\ \times 1129.8 \text{ MMBtu}/\text{MMscf} = 41.0 \text{ lb}/\text{MMscf}$$

CO, PM<sub>10</sub> and VOC : AP-42 Tables 1.4-1 and 1.4-2, 7/98 Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion (**Attachment III**)

CO: 84.0 lb CO/MMscf (101 ppmv @ 3% O<sub>2</sub>)\*

PM<sub>10</sub>: 7.6 lb PM<sub>10</sub>/MMscf

VOC: 5.5 lb VOC/MMscf

$$\text{CO: } 100.9 \text{ ft}^3/10^6 \text{ ft}^3 \times 20.9/17.9 \times 8545 \text{ ft}^3/\text{MMbtu} \times \text{lbmol}/379 \text{ ft}^3 \times 28 \text{ lb}/\text{lbmol} \\ \times 1129.8 \text{ MMBtu}/\text{MMscf} = 84.0 \text{ lb}/\text{MMscf} \text{ (AP-42)}$$

(Note that this EF is considered to be a more realistic estimate than the PTO EF of 112 ppmv @ 3% O<sub>2</sub>)

Emissions Factors

Pollutant	lb/MMscf	ppmv @ 3% O <sub>2</sub>
NOx	41.0	30
VOC	5.5	
PM10	7.6	
CO	84.0	101

Please note that the hot oil heater S-43-15 was source tested on December 9, 1999 and November 8, 2000. The results are listed in the table below.

Date	December 9, 1999	November 8, 2000	Average
NOx	0.0577 lb/MMBtu	0.0758 lb/MMBtu	0.06675 lb/MMBtu
CO	2.6 ppmv @ 3% O <sub>2</sub>	213.1 ppmv @ 3% O <sub>2</sub>	108 ppmv @ 3% O <sub>2</sub>

Note that the proposed emissions factors for NOx (0.036 lb/MMBtu) and CO (101 ppmv @ 3% O<sub>2</sub>) are less than the average source test values and are surplus of the District Rule 4307 requirements (Table1) of 0.036 lb/MMBtu and 400 ppmv @ 3% O<sub>2</sub>, respectively.

**B. Baseline Period Determination**

Pursuant to District Rule 2201, Section 3.8, the baseline period for determining actual historical emissions for banking purposes shall be a period of time equal to either:

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

*3.8.2 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; or*

*3.8.3 a shorter period of at least one year if the emissions unit has not been in operation for two years and this represents the full operational history of the emissions unit, including any replacement units; or*

*3.8.4 zero years if an emissions unit has been in operation for less than one year (only for use when calculating AER).*

The ERC application was received and was complete (no additional information from Aera was required) on January 10, 2008. The two-year period immediately prior to submission of the complete ERC application (January 10, 2006 – January 10, 2008) is 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, gas plant combustion equipment was either not operating or consuming much less than normal quantities of gas (please see quarterly fuel use data listed in Section V. C. below). The hot oil heater was designated as a compliant dormant emissions unit (DEU) in June 2005 (project 1050738).

Section 3.8.2 of Rule 2201 allows for another consecutive two year period if it is representative of normal operation and is within 5 yrs of submission of the complete ERC application i.e. a two-year period beginning after January 10, 2003. The time period from 1<sup>st</sup> Quarter 2003 through 4<sup>th</sup> Quarter 2004 (excluding January 2003) was selected as the baseline period.

Please note that this two year period ends 1 quarter later than the baseline period in project 1075362 as the hot oil heater continued to operate after the IC engine compressors were shutdown. 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

This baseline period conforms to Section 3.8.2 of Rule 2201 as described above.

### **C. Historical Actual Emissions**

The monthly fuel usages by the hot oil heater over the baseline period (4<sup>th</sup> Quarter 2002 through 3<sup>rd</sup> Quarter 2004) are included in **Attachment IV**.

HAE is the product of average quarterly fuel use (mscf) times the emissions factor in lb/MMscf. The quarterly fuel use data and averages for each quarter are included in the tables below. The baseline period is indicated in bold type.



Quarter	mscf
<b>February – March 2003</b>	<b>5826</b>
<b>April – June 2003</b>	<b>8637</b>
<b>July – September 2003</b>	<b>8022</b>
<b>October – December 2003</b>	<b>8529</b>
<b>January - March 2004</b>	<b>9598</b>
<b>April – June 2004</b>	<b>8888</b>
<b>July – September 2004</b>	<b>9207</b>
<b>October – December 2004</b>	<b>9979</b>
<b>January 2005*</b>	<b>2441</b>

\*no fuel was consumed by the hot oil heater after January 2005

The average fuel usages for each quarter were obtained by averaging fuel use for each of the quarters and are listed in the table below.

Qtr	Average Fuel Use (mscf)
1 <sup>st</sup>	8932
2 <sup>nd</sup>	8763
3 <sup>rd</sup>	8615
4 <sup>th</sup>	9254

The average quarter HAE are calculated as the product of average fuel use multiplied by the emissions factor. The results of the calculations over the baseline period are listed in the table below. A sample calculation for 1<sup>st</sup> quarter follows.

NOx: 8932 mscf x 41.0 lb NOx/1000 mscf = 366 lb/yr

VOC: 8932 mscf x 5.5 lb/1000 mscf = 49 lb/yr

CO: 8932 x 84 lb/1000 mscf = 750 lb/yr

PM10: 8932 mscf x 7.6 lb PM10/1000 mscf = 68 lb/yr

**Average Quarterly HAE**

Quarter	Actual fuel consumption (mscf)	NOx (lb/qtr)	VOC	CO	PM10
1 Q	8932	366	49	750	68
2 Q	8763	359	48	736	67
3 Q	8615	353	47	724	65
4 Q	9254	379	51	777	70

**D. Actual Emission Reductions (AER)**

Aera has applied for ERC banking credits for the permanent cessation of the hot oil boiler S-43-15. The boiler is not being replaced. Therefore, the HAE is equal to the actual emissions reductions (AER).

**Average Quarterly HAE**

Quarter	Actual fuel consumption (mscf)	NOx (lb/qtr)	VOC	CO	PM10
1 Q	8932	366	49	750	68
2 Q	8763	359	48	736	67
3 Q	8615	353	47	724	65
4 Q	9254	379	51	777	70

**AER = HAE**

AER (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	366	359	353	379
PM10	68	67	65	70
CO	750	736	724	777
VOC	49	48	47	51

**E. Air Quality Improvement Deduction (10% of AER)**

AQID (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	37	36	35	38
PM10	7	7	7	7
CO	75	74	72	78
VOC	5	5	5	5

**F. Increases in Permitted Emissions (IPE)**

No IPE is associated with this project.

**G. Bankable Emissions Reductions Credits (AER – AQID)**

ERC (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	329	323	318	341
PM10	61	60	58	63
CO	675	662	652	699
VOC	44	43	42	46

**VI. COMPLIANCE**

To be eligible for banking, emission reduction credits (ERC's) must be verified as being real, surplus, permanent, quantifiable, and enforceable pursuant to District Rules 2201 and 2301. In addition, the application must be submitted within the timelines specified in Rule 2301.

**A. Real**

Aera has ceased operation of the hot oil heater. It is currently being dismantled and removed from the site. Therefore, the reductions from S-43 are real.

**B. Enforceable**

The permit for the hot oil heater was surrendered August 27, 2007. Therefore, the reductions are enforceable.

**C. Quantifiable**

The AER's were calculated using District recognized emission factors and actual historical fuel use data. Therefore, the reductions are quantifiable.

**D. Permanent**

Aera has ceased operation of the hot oil heater. It is being dismantled and removed from facility S-43. Aera's sale of the hot oil heater to Crimson Resource Management was finalized July 19, 2007. However, Crimson Resource Management will not be allowed to operate the heater at any location without first receiving an Authority to Construct subject to the offset requirements of District Rule 2201 New Source Review. Therefore, the reductions are permanent.

**E. Surplus**

The resulting emission reductions are not mandated by any law, rule, regulation, agreement, or order of the District, State, or Federal Government. The reductions are not attributed to a control measure noticed for workshop or proposed, nor contained in a State Implementation Plan. The reductions which qualify for banking have been calculated as surplus of the District Rule 4307 limits of 30 ppmv @ 3% O<sub>2</sub> for NO<sub>x</sub> and 400 ppmv @ 3% O<sub>2</sub> for CO. Therefore, the reductions are surplus.

**F. Timeliness**

An application for ERC's was received on January 10, 2008, within 180 days following the shutdown pursuant to Rule 2301, "Emission Reduction Credit Banking", Section 4.2.3. According to District policy 1805 shutdown is the date the permits were surrendered unless the Control Officer determines that:

- (a) the unit has been removed or fallen into an inoperable and unmaintained condition such that start-up would require an investment exceeding 50% of the current replacement cost; and
- (b) the owner cannot demonstrate to the satisfaction of the Control Officer that the owner intended to operate again. Evidence of "intent to operate again" may include valid production contracts, orders, other agreements, or any economically based reasons which would require the operation of the emissions unit.

The hot oil heater was not removed and had not fallen into inoperable and unmaintained condition such that start-up would require an investment exceeding 50% of the current replacement cost prior to surrendering the PTO (August 27, 2007). Because the ERC application was filed no later than 180 days after August 27, 2007 (the date the PTO was surrendered), the application is timely.

**VII. RECOMMENDATION**

After public notice, comments and review, issue ERC Banking Certificates S-2782-1, S-2782-2, S-2782-3, and S-2782-4 to Aera Energy LLC for the following amounts:

ERC Certificate	1 <sup>st</sup> Qtr (lbs)	2 <sup>nd</sup> Qtr (lbs)	3 <sup>rd</sup> Qtr (lbs)	4 <sup>th</sup> Qtr (lbs)
S-2782-1 (VOC)	44	43	42	46
S-2782-2 (NOx)	329	323	318	341
S-2782-3 (CO)	675	662	652	699
S-2782-4 (PM10)	61	60	58	63

The draft ERC certificates are included in **Attachment V**.

# **ATTACHMENT I**

## **PTOs**

INSPECTION

EXPIRATION DATE: 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: 27S RANGE: 21E

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

WORKSHEET

### CONDITIONS

1. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080]
2. 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]
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]
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3]
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/dscf. [District NSR Rule]
6. Emission rates shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 100 ppb/MMBtu, or CO: 112 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201]
7. Excess combustion air shall be maintained at no less than 10% unless continuous operation analyzer/controller is utilized. [District NSR Rule]
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]
9. The pressure regulator's adjusting screw(s) shall be fixed with wire seals. [District 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 procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1]
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 three consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel sulfur content source test fails to show compliance, weekly testing shall resume. [District Rule 2080]

# **ATTACHMENT II**

## Laboratory Analysis



Attention: Mr. Mike Brown  
 Aera Energy LLC  
 P O Box 38  
 Lost Hills CA 93249

Sampled: 5/14/2003  
 Submitted: 5/16/2003  
 Analyzed: 5/16/2003  
 Reported: 5/19/2003

**Gas Analysis by Chromatography - ASTM D 3588-91**

Meter#: 9416 Lab No.: 030473-2  
 Description: Time: 3:55 PM  
 Facility: Lost Hills Condition: Normal

Component	Mole %	Weight %	G/MCF
Oxygen	ND	0.00	
Nitrogen	0.76	1.08	
Carbon Dioxide	1.79	3.99	
Hydrogen	ND	0.00	
Carbon Monoxide	ND	0.00	
Methane	83.61	68.05	
Ethane	8.98	13.69	
Propane	2.40	5.37	0.662
iso-Butane	0.21	0.61	0.068
n-Butane	1.79	5.27	0.565
iso-Pentane	0.13	0.47	0.047
n-Pentane	0.05	0.18	0.018
Hexanes Plus	0.30	1.29	0.122
Totals	100.00	100.00	1.482

Specific Volume, ft <sup>3</sup> /lb	19.24	Values Corrected for Compressibility	CHONS	Weight %
Compressibility (Z) Factor	0.9970			
Specific Gravity, Calculated	0.6806	0.6824	Carbon	73.842
			Hydrogen	22.177
<b>GROSS</b>			Oxygen	2.901
BTU/ft <sup>3</sup> Dry	1149.9	1153.4	Nitrogen	1.080
BTU/ft <sup>3</sup> Wet	1129.8	1133.2	Sulfur	0.000
BTU/lb Dry	22124.8	22191.9	F FACTOR @	8675
BTU/lb Wet	21737.6	21803.6	68 deg F, dscf/MMBTU	
<b>NET</b>			F FACTOR @	8545
BTU/ft <sup>3</sup> Dry	1040.8	1044.0	60 deg F, dscf/MMBTU	
BTU/ft <sup>3</sup> Wet	1022.6	1025.7		
BTU/lb Dry	20025.9	20086.7		
BTU/lb Wet	19675.4	19735.1		

Hydrogen Sulfide ppm	Tr<1	Method	GC/FPD
Total Sulfur ppm	Tr<1	Method	ASTMD 3246
Hydrocarbon Dew Point, deg F	Not Tested	Method	Bureau of Mines
Moisture, lbs H <sub>2</sub> O/MMCF	Not Tested	Method	Bureau of Mines

ND: None Detected Tr: Trace



**ATTACHMENT III**  
AP-42 Tables 1.4-1 and 1.4-2

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION<sup>a</sup>

Pollutant	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
CO <sub>2</sub> <sup>b</sup>	120,000	A
Lead	0.0005	D
N <sub>2</sub> O (Uncontrolled)	2.2	E
N <sub>2</sub> O (Controlled-low-NO <sub>x</sub> burner)	0.64	E
PM (Total) <sup>c</sup>	7.6	D
PM (Condensable) <sup>c</sup>	5.7	D
PM (Filterable) <sup>c</sup>	1.9	B
SO <sub>2</sub> <sup>d</sup>	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds.

VOC = Volatile Organic Compounds.

<sup>b</sup> Based on approximately 100% conversion of fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/10<sup>6</sup> scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO<sub>2</sub>, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10<sup>4</sup> lb/10<sup>6</sup> scf.

<sup>c</sup> All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM<sub>10</sub>, PM<sub>2.5</sub> or PM<sub>1</sub> emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

<sup>d</sup> Based on 100% conversion of fuel sulfur to SO<sub>2</sub>. Assumes sulfur content is natural gas of 2,000 grains/10<sup>6</sup> scf. The SO<sub>2</sub> emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO<sub>2</sub> emission factor by the ratio of the site-specific sulfur content (grains/10<sup>6</sup> scf) to 2,000 grains/10<sup>6</sup> scf.

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>) AND CARBON MONOXIDE (CO)  
FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO <sub>x</sub> <sup>b</sup>		CO	
	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS) <sup>c</sup>	280	A	84	B
Uncontrolled (Post-NSPS) <sup>c</sup>	190	A	84	B
Controlled - Low NO <sub>x</sub> burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO <sub>x</sub> burners	50	D	84	B
Controlled - Low NO <sub>x</sub> burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> Expressed as NO<sub>2</sub>. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO<sub>x</sub> emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO<sub>x</sub> emission factor.

<sup>c</sup> NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

# **ATTACHMENT IV**

## Monthly Fuel Usage

Aera Energy LLC  
 Emission Reduction Credit Application  
 Lost Hills Section 15 Gas Plant  
 Hot Oil Heater - PTO S-43-15

Monthly Fuel Meter Readings

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>Lost Hills Gas Plant and Field Meters</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>	<b>MSCF</b>
2000	PLANT HEATER FUEL (Meter 9355)	3,355	3,132	3,359	2,882	3,143	2,560	2,618	2,642	2,705	3,157	3,282	3,927
2001	PLANT HEATER FUEL (Meter 9355)	3,984	3,645	3,759	3,450	3,194	1,935	2,626	2,306	2,544	2,628	2,621	2,768
2002	PLANT HEATER FUEL (Meter 9355)	2,888	2,660	2,752	3,023	2,862	2,128	2,033	2,266	2,271	2,475	2,471	2,899
2003	PLANT HEATER FUEL (Meter 9355)	3,188	2,794	3,032	2,759	3,136	2,742	2,651	2,756	2,615	2,725	2,833	2,971
2004	PLANT HEATER FUEL (Meter 9355)	3,253	3,148	3,197	3,159	3,115	2,614	3,000	3,124	3,083	3,188	3,420	3,371
2005	PLANT HEATER FUEL (Meter 9355)	2,441	0	0	0	0	0	0	0	0	0	0	0

Representative Period: 2003 & 2004

1Q Fuel Totals (mcf)	
2003	9014.0
2004	9598.0
Average	9306.0

2Q Fuel Totals (mcf)	
2003	8636.6
2004	8888.0
Average	8762.3

3Q Fuel Totals (mcf)	
2003	8022.0
2004	9207.0
Average	8614.5

4Q Fuel Totals (mcf)	
2003	8529.0
2004	9979.0
Average	9254.0

Quarterly Emissions (pounds)					
	Emission Factor (lb/mmcf)	1Q	2Q	3Q	4Q
PM <sub>10</sub>	7.6	70.7	66.6	65.5	70.3
CO	84.0	781.7	736.0	723.6	777.3
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0
NO <sub>x</sub>	41.0	381.5	359.2	353.1	379.3
VOC	5.5	51.2	48.2	47.4	50.9

AP-42 Table 1.4-2 (total PM)

Equivalent to 101 ppm CO (less than 400 ppm CO limit in Rule 1146 )

Sulfur content in fuel gas is negligible (< 1 ppm)

Based on 30 ppm NO<sub>x</sub> (Rule 1146 limit)

AP-42 Table 1.4-2

Quarterly Emissions (pounds)					
After 10% AQI Reduction:	Emission Factor (lb/mmcf)	1Q	2Q	3Q	4Q
PM <sub>10</sub>	7.6	63.7	59.9	58.9	63.3
CO	84.0	703.5	662.4	651.3	699.6
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0
NO <sub>x</sub>	41.0	343.3	323.2	317.8	341.4
VOC	5.5	46.1	43.4	42.6	45.8

**ATTACHMENT V**  
Draft ERC Certificates

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-1**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
44 lbs	43 lbs	42 lbs	46 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Sadeghi, Executive Director / APCO

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

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-2**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
329 lbs	323 lbs	318 lbs	341 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Sayed Saadeh, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services



San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-3**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B.& M.  
LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
675 lbs	662 lbs	652 lbs	699 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Sadeghi, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-4**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B.& M.  
LOST HILLS, CA

**For PM10 Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
61 lbs	60 lbs	58 lbs	63 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Soyed Sadreghi, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

## Richard Edgehill

---

**From:** Theresa Anderson [tmanders@arb.ca.gov]  
**Sent:** Wednesday, May 14, 2008 4:09 PM  
**To:** Richard Edgehill  
**Subject:** Re: ERC projects 1075362 and 1080067, S-43

ARB does not plan to comment on either project.

Thanks

Theresa

Richard Edgehill wrote:

Laura and Theresa: Please let me know if you plan to comment on ERC projects S43, 1075362 and 1080067. The 30-day public comment period has ended.

Thank you.

Richard Edgehill  
SJVAPCD  
2700 M St, Suite 275  
Bakersfield, CA 93301  
661 326-6958

# PROOF OF PUBLICATION

RECEIVED

RE

JUN 04 2008

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

Ad Number: 10897374  
Edition: TBC  
Class Code: Legal Notices  
Start Date: 5/28/2008  
Billing Lines: 19  
Total Cost: \$ 71.02  
Billing Address: SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG FRED BATES  
FRESNO, CA 93726

SJVAPCD  
Southern Region  
Run Times 1

Stop Date 5/28/2008

Inches 114.92

Account 1SAN51

SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG FRED BATES  
FRESNO, CA 93726

RECEIVED

MAY 30 2008

FINANCE  
SJVAPCD

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: 5/28/08

ALL IN YEAR 2008

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

DATED AT BAKERSFIELD CALIFORNIA

5-28-08

Solicitor I.D.: 0

First Text  
NOTICE OF FINAL ACTION FOR THE ISSUANCE OF

Ad Number 10897374

**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 reductions generated by shutdown of hot oil heater S 43 15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs to be issued is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

The application review for Project #S 1080067 is available for public inspection at the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 M STREET SUITE 275, BAKERSFIELD, CA 93301.  
May 28, 2008 (10897374)

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

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

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 Addressee

B. Received by (Printed Name) C. Date of Delivery  
 Brent Winn

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7006 2760 0000 1340 0769

ERC Proj #S-1080067

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage		

Sent To: Brent Winn  
 Aera Energy LLC  
 Street, Apt. No. or PO Box No: PO Box 11164  
 City, State, Zip: Bakersfield, CA 93389

PS Form 3800, August 2006 See Reverse for Instructions

7006 2760 0000 1340 0769



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAY 22 2008

Brent Winn  
Aera Energy LLC  
P.O. Box 11164  
Bakersfield, CA 93389

**RE: Notice of Final Action - Emission Reduction Credits**  
**Project Number: S-1080067**

Dear Mr. Winn:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy LLC for emission reductions generated by shutdown of hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs to be issued is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

Notice of the District's preliminary decision to issue the ERC Certificates was published on April 10, 2008. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on April 7, 2008. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 326-6900.

Sincerely,

David Warner  
Director of Permit Services

DW:RUE/lis

Enclosures

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

---

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAY 22 2008

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**RE: Notice of Final Action - Emission Reduction Credits**  
**Project Number: S-1080067**

Dear Mr. Rios:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy LLC for emission reductions generated by shutdown of hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs to be issued is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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 April 10, 2008. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on April 7, 2008. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 326-6900.

Sincerely,

David Warner  
Director of Permit Services

DW:RUE/lis

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAY 22 2008

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**RE: Notice of Final Action - Emission Reduction Credits**  
**Project Number: S-1080067**

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Aera Energy LLC for emission reductions generated by shutdown of hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs to be issued is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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 April 10, 2008. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on April 7, 2008. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 326-6900.

Sincerely,

David Warner  
Director of Permit Services

DW:RUE/lis

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985



Bakersfield Californian

**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 reductions generated by shutdown of hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs to be issued is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

The application review for Project #S-1080067 is available for public inspection at the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 'M' STREET SUITE 275, BAKERSFIELD, CA 93301.



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-1**

ISSUED TO: AERA ENERGY LLC  
 ISSUED DATE: May 14, 2008  
 LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
 NE 15, T.27S, R.21E., M.D.B.& M.  
 LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
44 lbs	43 lbs	42 lbs	46 lbs

Conditions Attached


Method Of Reduction

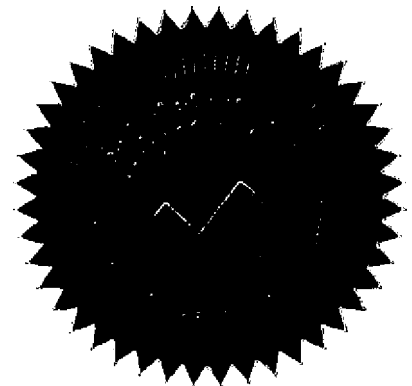
- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

shutdown of hot oil heater S-43-15

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

Seyed Sadredin, Executive Director / APCO

  
 David Warner, Director of Permit Services





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-2**

ISSUED TO: AERA ENERGY LLC  
 ISSUED DATE: May 14, 2008  
 LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
 NE 15, T.27S, R.21E., M.D.B.& M.  
 LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
329 lbs	323 lbs	318 lbs	341 lbs

Conditions Attached

Method Of Reduction

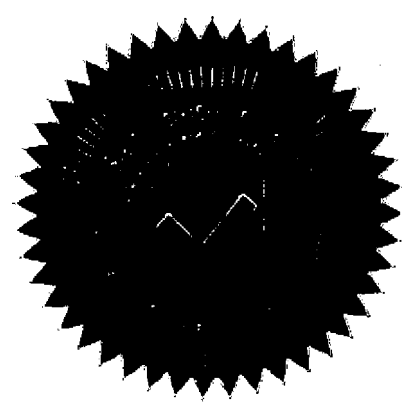
- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

shutdown of hot oil heater S-43-15

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

Sayed Sadredin, Executive Director / APCO

  
 David Warner, Director of Permit Services





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-3**

ISSUED TO: AERA ENERGY LLC  
 ISSUED DATE: May 14, 2008  
 LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
 NE 15, T.27S, R.21E., M.D.B. & M.  
 LOST HILLS, CA

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

Quarter 1	Quarter 2	Quarter 3	Quarter 4
675 lbs	662 lbs	652 lbs	699 lbs

Conditions Attached

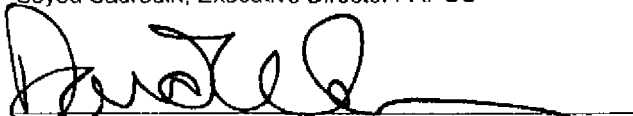
Method Of Reduction

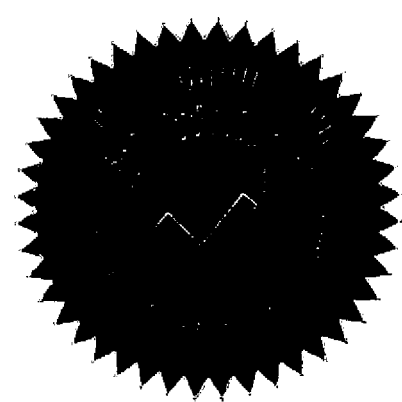
- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

shutdown of hot oil heater S-43-15

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

Seyed Sadredin, Executive Director / APCO

  
David Warner, Director of Permit Services





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-4**

ISSUED TO: AERA ENERGY LLC  
 ISSUED DATE: May 14, 2008  
 LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
 NE 15, T.27S, R.21E., M.D.B. & M.  
 LOST HILLS, CA

**For PM10 Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
61 lbs	60 lbs	58 lbs	63 lbs

Conditions Attached

Method Of Reduction

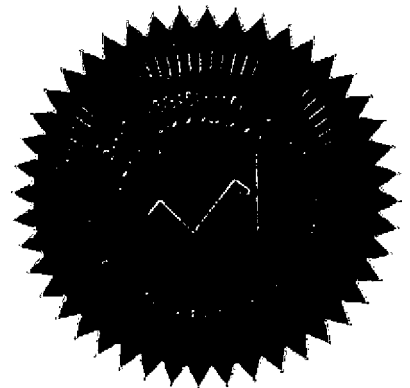
- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

shutdown of hot oil heater S-43-15

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

Seyed Sadredin, Executive Director / APCO

  
David Warner, Director of Permit Services



RE

# PROOF OF PUBLICATION

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

Ad Number: 10835684 PO #: s-1080067  
Edition: TBC Run Times 1  
Class Code Legal Notices  
Start Date 4/10/2008 Stop Date 4/10/2008  
Billing Lines 20 Inches 120.92  
Total Cost \$ 74.60 Account 1SAN51  
Billing SAN JOAQUIN VALLEY A.P.C.D.  
Address 1990 E GETTYSBURGFRED BATES  
FRESNO,CA 93726

SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG FRED BATES  
FRESNO, CA 93726

RECEIVED

APR 21 2008

SJVAPCD  
Southern Region

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: 4/10/08

ALL IN YEAR 2008

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

DATED AT BAKERSFIELD CALIFORNIA

4-10-08

Solicitor I.D.: 0

First Text  
NOTICE OF PRELIMINARY DECISION FOR THE PR

Ad Number 10835684

**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 hot oil heater S 43 15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs proposed for banking is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs

The analysis of the regulatory basis for these proposed actions, Project #S 1080067, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 W STREET SUITE 275, BAKERSFIELD, CA 93301. April 10, 2008 (10835684)

RECEIVED

APR 14 2008

FINALS  
SJVAPCD

RECEIVED

APR 08 2008

SJVAPCD  
Southern Region

NORTHERN REGION

CENTRAL REGION

SOUTHERN REGION

# ERC/PUBLIC NOTICE CHECK LIST

PROJECT #s: S-1080067

REQST. COMPL.

- ERC TRANSFER OF PREVIOUSLY BANKED CREDITS
- ERC PRELIMINARY PUBLIC NOTICE
- ERC FINAL PUBLIC NOTICE
- NSR/CEQA PRELIMINARY PUBLIC NOTICE
- NSR/CEQA FINAL PUBLIC NOTICE

Date Completed February 6, 2008 /By Leonard Scandura

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

### ENCLOSED DOCUMENTS REQUIRE:

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

Send **PRELIMINARY** Notice Letters to CARB, EPA and Applicant; Including the Following Attachments:

Application Evaluation

Other Public Notice

Send **PRELIMINARY** Public Notice for Publication to Bakersfield Californian

Send Signed Copies of **PRELIMINARY** Notice Letters to: Richard Edgehill

Director's Signature and District Seal Embossed on ERC Certificates

Director's Signature on Cover Letter and Mail Cover Letter & ERC Certificates by Certified Mail to:

Applicant:

Applicant and Additional Addressees (see cover letters)

Other

Send Copies of Signed and Seal Embossed ERC Certificates and Signed cover letter to Regional Office Attn:

Other Special Instructions (please specify): \_\_\_\_\_

**1 From** Please print and press hard  
Date 4/7/08 Sender's FedEx Account Number 1500-4459-6  
Sender's Name D. WARNER Phone ( 559 ) 230-6000  
Company SJV UNIFIED AIR POLLUTION DIS  
Address 1990 E GETTYSBURG AVE  
City FRESNO State CA ZIP 93726-0244

**2 Your Internal Billing Reference**  
First 24 characters will appear on invoice.  
51075362  
51080067

**3 To**  
Recipient's Name MIKE TOLLSTRUP Phone ( 916 ) 322-6026  
Company CARB-PROJECT ASSESSMENT BRANCH  
Recipient's Address 1001 I STREET 6TH FLOOR  
We cannot deliver to P.O. boxes or P.O. ZIP codes  
Address  
To request a package be held at a specific FedEx location, print FedEx address here  
City SACRAMENTO State CA ZIP 95814

0334464389



**Schedule a pickup at fedex.com**  
Simplify your shipping. Manage your account. Access all the tools you need.

**1 From** Please print and press hard  
Date 4/7/08 Sender's FedEx Account Number 1500-4459-6  
Sender's Name D. WARNER Phone ( 559 ) 230-6000  
Company SJV UNIFIED AIR POLLUTION DIS  
Address 1990 E GETTYSBURG AVE  
City FRESNO State CA ZIP 93726-0244

**2 Your Internal Billing Reference**  
First 24 characters will appear on invoice.  
51075362  
51080067

**3 To**  
Recipient's Name GERARDO RIOS Phone ( 415 ) 744-1264  
Company US EPA-REGION IX  
Recipient's Address 75 HAWTHORNE ST  
We cannot deliver to P.O. boxes or P.O. ZIP codes  
Address  
To request a package be held at a specific FedEx location, print FedEx address here  
City SAN FRANCISCO State CA ZIP 94105

0352201654



**Store your addresses at fedex.com**  
Simplify your shipping. Manage your account. Access all the tools you need.

**4a Express Package Service** Packages up to 150 lbs  
 FedEx Priority Overnight Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Standard Overnight Next business afternoon. \* Saturday Delivery NOT available.  
 FedEx First Overnight Earliest next business morning delivery to select locations. \* Saturday Delivery NOT available.  
 FedEx 2Day Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx Envelope rate not available. Minimum charge: One-pound rate.  
 FedEx Express Saver Third business day. \* Saturday Delivery NOT available.

**4b Express Freight Service** Packages over 150 lbs  
 FedEx 1Day Freight\* Next business day. \*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 2Day Freight Second business day. \*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 3Day Freight Third business day. \*\* Saturday Delivery NOT available.

**5 Packaging**  
 FedEx Envelope\*  FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.  FedEx Box  FedEx Tube  Other \* Declared value limit \$500.

**6 Special Handling**  
 SATURDAY Delivery Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.  
 HOLD Weekday at FedEx Location  HOLD Saturday at FedEx Location Earliest next business morning delivery to select locations. \* FedEx Priority Overnight and FedEx 2Day to select locations.  
Does this shipment contain dangerous goods?  
 No  Yes As per attached Shipper's Declaration.  Yes Shipper's Declaration not required.  Dry Ice Dry Ice, 9, UN 1845 x \_\_\_\_\_ kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.  Cargo Aircraft Only

**7 Payment Bill to:** Enter FedEx Acct. No. or Credit Card No. below  
 Sender  Recipient  Third Party  Credit Card  Cash/Check  
FedEx Acct. No. \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Total Packages \_\_\_\_\_ Total Weight \_\_\_\_\_ Total Declared Value\* \$ \_\_\_\_\_ 00

\*Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. FedEx Use Only

**8 Residential Delivery Signature Options** If you require a signature, check Direct or Indirect  
 No Signature Required Package may be left without obtaining a signature for delivery.  Direct Signature Anyone at recipient's address may sign for delivery.  Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. **519**

Rev. Date 11/05-Part #158779-11994-2005 FedEx-PRINTED IN U.S.A.-SRF  
SAC21

**4a Express Package Service** Packages up to 150 lbs  
 FedEx Priority Overnight Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Standard Overnight Next business afternoon. \* Saturday Delivery NOT available.  
 FedEx First Overnight Earliest next business morning delivery to select locations. \* Saturday Delivery NOT available.  
 FedEx 2Day Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx Envelope rate not available. Minimum charge: One-pound rate.  
 FedEx Express Saver Third business day. \* Saturday Delivery NOT available.

**4b Express Freight Service** Packages over 150 lbs  
 FedEx 1Day Freight\* Next business day. \*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 2Day Freight Second business day. \*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 3Day Freight Third business day. \*\* Saturday Delivery NOT available.

**5 Packaging**  
 FedEx Envelope\*  FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.  FedEx Box  FedEx Tube  Other \* Declared value limit \$500.

**6 Special Handling** include FedEx address in Section 3  
 SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.  
 HOLD Weekday at FedEx Location  HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.  
Does this shipment contain dangerous goods?  
 No  Yes As per attached Shipper's Declaration.  Yes Shipper's Declaration not required.  Dry Ice Dry Ice, 9, UN 1845 x \_\_\_\_\_ kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.  Cargo Aircraft Only

**7 Payment Bill to:** Enter FedEx Acct. No. or Credit Card No. below  
 Sender  Recipient  Third Party  Credit Card  Cash/Check  
FedEx Acct. No. \_\_\_\_\_ Exp. Date \_\_\_\_\_  
Total Packages \_\_\_\_\_ Total Weight \_\_\_\_\_ Total Declared Value\* \$ \_\_\_\_\_ 00

\*Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. FedEx Use Only

**8 Residential Delivery Signature Options** If you require a signature, check Direct or Indirect  
 No Signature Required Package may be left without obtaining a signature for delivery.  Direct Signature Anyone at recipient's address may sign for delivery.  Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. **519**



## Lynn Sargenti

---

**From:** Lynn Sargenti  
**Sent:** Friday, April 04, 2008 4:38 PM  
**To:** BAKERSFIELD CALIFORNIAN (E-mail)  
**Cc:** Tony Reyes; Ryan Kincaid  
**Subject:** Public Notice, Project #S-1080067

**Importance:** High



BAKERSFIELD  
COVER PG.doc



S0043,  
067-BAK CALIF

*Lynn Sargenti*  
*Permits Division/Central*  
*Sr. Office Assistant*  
*San Joaquin Valley APCD*  
*[www.lynn.sargenti@valleyair.org](mailto:www.lynn.sargenti@valleyair.org)*

## Lynn Sargenti

---

**From:** postmaster@sjvweb  
**Sent:** Friday, April 04, 2008 4:49 PM  
**To:** Lynn Sargenti  
**Subject:** Delivery Status Notification (Relay)



ATT7850730.t Public Notice,  
xt roject #S-1080.

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

legals@bakersfield.com



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

APR 07 2008

Brent Winn  
Aera Energy LLC  
P.O. Box 11164  
Bajersfield, CA 93389

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: S-1080067**

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 hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs proposed for banking is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 326-6958.

Sincerely,

*David Warner*  
David Warner  
Director of Permit Services

DW:RUE/ls

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

APR 07 2008

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: S-1080067**

Dear Mr. Rios:

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 hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs proposed for banking is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 326-6958.

Sincerely,

*DW* David Warner  
Director of Permit Services

DW:RUE/lis

Enclosure

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

APR 07 2008

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: S-1080067**

Dear Mr. Tollstrup:

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 hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs proposed for banking is 1311 lb/yr NOx, 242 lb/yr PM10, 2688 lb/yr CO, and 175 lb/yr VOCs.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 326-6958.

Sincerely,

*DW* David Warner  
Director of Permit Services

DW:RUE/lis

Enclosure

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985

Bakersfield Californian  
Bakersfield Californian

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

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Aera Energy LLC for the shutdown of hot oil heater S-43-15, at the Lost Hills Gas Plant, NE Section 15, T27S, R21E, Lost Hills. The quantity of ERCs proposed for banking is 1311 lb/yr NO<sub>x</sub>, 242 lb/yr PM<sub>10</sub>, 2688 lb/yr CO, and 175 lb/yr VOCs.

The analysis of the regulatory basis for these proposed actions, Project #S-1080067, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 'M' STREET SUITE 275, BAKERSFIELD, CA 93301.**

# 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:** Richard Edgehill, Air Quality Engineer  
**Date:** March 24 2008  
  
**Lead Engineer:** Allan Phillips, Supv. AQE  
**Date:**  
  
**Project Number:** S-43, 1080067  
  
**ERC Certificate #s:** S-2782-1, '-2, '-3, and '-4  
  
**Date Received:** January 10, 2008  
**Date Complete:** January 31, 2008

### I. SUMMARY

Aera Energy LLC (Aera) has applied for Emission Reduction Credits (ERCs) for the shutdown of a natural gas-fired hot oil heater at the Section 15 Gas Plant. The Permit to Operate (PTO S-43-15-8) was canceled August 27, 2007. The application for ERCs is timely because it was filed within 180 days following the shut down pursuant to Rule 2301, "Emission Reduction Credit Banking", Section 4.2.3.

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

<b>Emissions Reductions Qualified for Banking (lbs)</b>				
	<b>1<sup>st</sup> Qtr</b>	<b>2<sup>nd</sup> Qtr</b>	<b>3<sup>rd</sup> Qtr</b>	<b>4<sup>th</sup> Qtr</b>
<b>NOx</b>	329	323	318	341
<b>PM10</b>	61	60	58	63
<b>CO</b>	675	662	652	699
<b>VOCs</b>	44	43	42	46

Please note that the entire gas plant was shutdown in 2007. An ERC application for the shutdown of several IC engine compressors is pending project S43, 1075362.

## II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (September 21, 2006)  
Rule 2301 Emission Reduction Credit Banking (December 17, 1992)

## III. PROJECT LOCATION

The hot oil heater is 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 has been shutdown and will be removed from the site. The permit for the 5 MMBtu/hr natural gas-fired hot oil heater (S-43-15-8) was surrendered August 27, 2007.

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

## V. CALCULATIONS

### A. Assumptions and Emissions Factors

NO<sub>x</sub>, CO, and PM<sub>10</sub> HAE is calculated based on the fuel use (mcf) multiplied times the emissions factors (lb/MMscf).

HHV = 1129.8 Btu/scf (laboratory analysis)

F-Factor for Natural Gas: 8,545 dscf/MMBtu @ 60°F (laboratory analysis)

The laboratory analysis is included in **Attachment II**.

### B. Emissions Factors (EF)

NO<sub>x</sub>: 30 ppmv @ 3% O<sub>2</sub> (Rule 4307 Table 1 Requirement)

$$30 \text{ ft}^3/10^6 \text{ ft}^3 \times 20.9/17.9 \times 8545 \text{ ft}^3/\text{MMBtu} \times \text{lbmol}/379 \text{ ft}^3 \times 46 \text{ lb}/\text{lbmol} \\ \times 1129.8 \text{ MMBtu}/\text{MMscf} = 41.0 \text{ lb}/\text{MMscf}$$

CO, PM<sub>10</sub> and VOC : AP-42 Tables 1.4-1 and 1.4-2, 7/98 Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion (**Attachment III**)

CO: 84.0 lb CO/MMscf (101 ppmv @ 3% O<sub>2</sub>)\*

PM<sub>10</sub>: 7.6 lb PM<sub>10</sub>/MMscf



**VOC: 5.5 lb VOC/MMscf**

$$\text{CO: } 100.9 \text{ ft}^3/10^6 \text{ ft}^3 \times 20.9/17.9 \times 8545 \text{ ft}^3/\text{MMBtu} \times \text{lbmol}/379 \text{ ft}^3 \times 28 \text{ lb}/\text{lbmol} \\
 \times 1129.8 \text{ MMBtu}/\text{MMscf} = 84.0 \text{ lb}/\text{MMscf} \text{ (AP-42)}$$

(Note that this EF is considered to be a more realistic estimate than the PTO EF of 112 ppmv @ 3% O<sub>2</sub>)

**Emissions Factors**

Pollutant	lb/MMscf	ppmv @ 3% O <sub>2</sub>
NOx	41.0	30
VOC	5.5	
PM10	7.6	
CO	84.0	101

Please note that the hot oil heater S-43-15 was source tested on December 9, 1999 and November 8, 2000. The results are listed in the table below.

Date	December 9, 1999	November 8, 2000	Average
NOx	0.0577 lb/MMBtu	0.0758 lb/MMBtu	0.06675 lb/MMBtu
CO	2.6 ppmv @ 3% O <sub>2</sub>	213.1 ppmv @ 3% O <sub>2</sub>	108 ppmv @ 3% O <sub>2</sub>

Note that the proposed emissions factors for NOx (0.036 lb/MMBtu) and CO (101 ppmv @ 3% O<sub>2</sub>) are less than the average source test values and are surplus of the District Rule 4307 requirements (Table1) of 0.036 lb/MMBtu and 400 ppmv @ 3% O<sub>2</sub>, respectively.

**B. Baseline Period Determination**

Pursuant to District Rule 2201, Section 3.8, the baseline period for determining actual historical emissions for banking purposes shall be a period of time equal to either:

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

*3.8.2 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; or*

*3.8.3 a shorter period of at least one year if the emissions unit has not been in operation for two years and this represents the full operational history of the emissions unit, including any replacement units; or*

*3.8.4 zero years if an emissions unit has been in operation for less than one year (only for use when calculating AER).*

The ERC application was received and was complete (no additional information from Aera was required) on January 10, 2008. The two-year period immediately prior to submission of the complete ERC application (January 10, 2006 – January 10, 2008) is 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, gas plant combustion equipment was either not operating or consuming much less than normal quantities of gas (please see quarterly fuel use data listed in Section V. C. below). The hot oil heater was designated as a compliant dormant emissions unit (DEU) in June 2005 (project 1050738).

Section 3.8.2 of Rule 2201 allows for another consecutive two year period if it is representative of normal operation and is within 5 yrs of submission of the complete ERC application i.e. a two-year period beginning after January 10, 2003. The time period from 1<sup>st</sup> Quarter 2003 through 4<sup>th</sup> Quarter 2004 (excluding January 2003) was selected as the baseline period.

Please note that this two year period ends 1 quarter later than the baseline period in project 1075362 as the hot oil heater continued to operate after the IC engine compressors were shutdown. 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

This baseline period conforms to Section 3.8.2 of Rule 2201 as described above.

### **C. Historical Actual Emissions**

The monthly fuel usages by the hot oil heater over the baseline period (4<sup>th</sup> Quarter 2002 through 3<sup>rd</sup> Quarter 2004) are included in **Attachment IV**.

HAE is the product of average quarterly fuel use (mscf) times the emissions factor in lb/MMscf. The quarterly fuel use data and averages for each quarter are included in the tables below. The baseline period is indicated in bold type.

Quarter	mscf
<b>February – March 2003</b>	<b>5826</b>
<b>April – June 2003</b>	<b>8637</b>
<b>July – September 2003</b>	<b>8022</b>
<b>October – December 2003</b>	<b>8529</b>
<b>January - March 2004</b>	<b>9598</b>
<b>April – June 2004</b>	<b>8888</b>
<b>July – September 2004</b>	<b>9207</b>
<b>October – December 2004</b>	<b>9979</b>
<b>January 2005*</b>	<b>2441</b>

\*no fuel was consumed by the hot oil heater after January 2005

The average fuel usages for each quarter were obtained by averaging fuel use for each of the quarters and are listed in the table below.

Qtr	Average Fuel Use (mscf)
1 <sup>st</sup>	8932
2 <sup>nd</sup>	8763
3 <sup>rd</sup>	8615
4 <sup>th</sup>	9254

The average quarter HAE are calculated as the product of average fuel use multiplied by the emissions factor. The results of the calculations over the baseline period are listed in the table below. A sample calculation for 1<sup>st</sup> quarter follows.

NOx:  $8932 \text{ mscf} \times 41.0 \text{ lb NOx}/1000 \text{ mscf} = 366 \text{ lb/yr}$   
 VOC:  $8932 \text{ mscf} \times 5.5 \text{ lb}/1000 \text{ mscf} = 49 \text{ lb/yr}$   
 CO:  $8932 \times 84 \text{ lb}/1000 \text{ mscf} = 750 \text{ lb/yr}$   
 PM10:  $8932 \text{ mscf} \times 7.6 \text{ lb PM10}/1000 \text{ mscf} = 68 \text{ lb/yr}$

**Average Quarterly HAE**

Quarter	Actual fuel consumption (mscf)	NOx (lb/qtr)	VOC	CO	PM10
1 Q	8932	366	49	750	68
2 Q	8763	359	48	736	67
3 Q	8615	353	47	724	65
4 Q	9254	379	51	777	70

**D. Actual Emission Reductions (AER)**

Aera has applied for ERC banking credits for the permanent cessation of the hot oil boiler S-43-15. The boiler is not being replaced. Therefore, the HAE is equal to the actual emissions reductions (AER).

**Average Quarterly HAE**

Quarter	Actual fuel consumption (mscf)	NOx (lb/qtr)	VOC	CO	PM10
1 Q	8932	366	49	750	68
2 Q	8763	359	48	736	67
3 Q	8615	353	47	724	65
4 Q	9254	379	51	777	70

**AER = HAE**

AER (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	366	359	353	379
PM10	68	67	65	70
CO	750	736	724	777
VOC	49	48	47	51

**E. Air Quality Improvement Deduction (10% of AER)**

AQID (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	37	36	35	38
PM10	7	7	7	7
CO	75	74	72	78
VOC	5	5	5	5

**F. Increases in Permitted Emissions (IPE)**

No IPE is associated with this project.

**G. Bankable Emissions Reductions Credits (AER – AQID)**

ERC (lbs/Qtr)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
NOx	329	323	318	341
PM10	61	60	58	63
CO	675	662	652	699
VOC	44	43	42	46

**VI. COMPLIANCE**

To be eligible for banking, emission reduction credits (ERC's) must be verified as being real, surplus, permanent, quantifiable, and enforceable pursuant to District Rules 2201 and 2301. In addition, the application must be submitted within the timelines specified in Rule 2301.

**A. Real**

Aera has ceased operation of the hot oil heater. It is currently being dismantled and removed from the site. Therefore, the reductions from S-43 are real.

**B. Enforceable**

The permit for the hot oil heater was surrendered August 27, 2007. Therefore, the reductions are enforceable.

**C. Quantifiable**

The AER's were calculated using District recognized emission factors and actual historical fuel use data. Therefore, the reductions are quantifiable.

**D. Permanent**

Aera has ceased operation of the hot oil heater. It is being dismantled and removed from facility S-43. Aera's sale of the hot oil heater to Crimson Resource Management was finalized July 19, 2007. However, Crimson Resource Management will not be allowed to operate the heater at any location without first receiving an Authority to Construct subject to the offset requirements of District Rule 2201 New Source Review. Therefore, the reductions are permanent.

**E. Surplus**

The resulting emission reductions are not mandated by any law, rule, regulation, agreement, or order of the District, State, or Federal Government. The reductions are not attributed to a control measure noticed for workshop or proposed, nor contained in a State Implementation Plan. The reductions which qualify for banking have been calculated as surplus of the District Rule 4307 limits of 30 ppmv @ 3% O<sub>2</sub> for NO<sub>x</sub> and 400 ppmv @ 3% O<sub>2</sub> for CO. Therefore, the reductions are surplus.

**F. Timeliness**

An application for ERC's was received on January 10, 2008, within 180 days following the shutdown pursuant to Rule 2301, "Emission Reduction Credit Banking", Section 4.2.3. According to District policy 1805 shutdown is the date the permits were surrendered unless the Control Officer determines that:

- (a) the unit has been removed or fallen into an inoperable and unmaintained condition such that start-up would require an investment exceeding 50% of the current replacement cost; and
- (b) the owner cannot demonstrate to the satisfaction of the Control Officer that the owner intended to operate again. Evidence of "intent to operate again" may include valid production contracts, orders, other agreements, or any economically based reasons which would require the operation of the emissions unit.

The hot oil heater was not removed and had not fallen into inoperable and unmaintained condition such that start-up would require an investment exceeding 50% of the current replacement cost prior to surrendering the PTO (August 27, 2007). Because the ERC application was filed no later than 180 days after August 27, 2007 (the date the PTO was surrendered), the application is timely.

**VII. RECOMMENDATION**

After public notice, comments and review, issue ERC Banking Certificates S-2782-1, S-2782-2, S-2782-3, and S-2782-4 to Aera Energy LLC for the following amounts:

ERC Certificate	1 <sup>st</sup> Qtr (lbs)	2 <sup>nd</sup> Qtr (lbs)	3 <sup>rd</sup> Qtr (lbs)	4 <sup>th</sup> Qtr (lbs)
S-2782-1 (VOC)	44	43	42	46
S-2782-2 (NOx)	329	323	318	341
S-2782-3 (CO)	675	662	652	699
S-2782-4 (PM10)	61	60	58	63

The draft ERC certificates are included in **Attachment V**.

Aera Energy LLC  
S-43, Project 1080067

**ATTACHMENT I**  
PTOs

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

Page 1 of 1

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

EXPIRATION DATE: 08/31/2009

SECTION: NE15 TOWNSHIP: 27S RANGE: 21E

## EQUIPMENT DESCRIPTION:

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

## CONDITIONS

1. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080]
2. 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]
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]
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3]
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/dscf. [District NSR Rule]
6. Emission rates shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 112 ppmv @ 3% O<sub>2</sub>, or CO: 112 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201]
7. Excess combustion air shall be maintained at no less than 10% unless a continuous gas operation analyzer/controller is utilized. [District NSR Rule]
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]
9. The pressure regulator's adjusting screw(s) shall be fixed with wire seal. [District 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 procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Code 108.1]
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 three consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual sulfur content source test fails to show compliance, weekly testing shall resume. [District Rule 2080]



Aera Energy LLC  
S-43, Project 1080067

# **ATTACHMENT II**

## Laboratory Analysis



Attention: Mr. Mike Brown  
 Aera Energy LLC  
 P O Box 38  
 Lost Hills CA 93249

Sampled: 5/14/2003  
 Submitted: 5/16/2003  
 Analyzed: 5/16/2003  
 Reported: 5/19/2003

**Gas Analysis by Chromotography - ASTM D 3588-91**

Meter#: 9415 Lab No.: 030473-2  
 Description: Time: 3:55 PM  
 Facility: Lost Hills Condition: Normal

Component	Mole %	Weight %	G/MCF	
Oxygen	ND	0.00		
Nitrogen	0.76	1.08		
Carbon Dioxide	1.79	3.99		
Hydrogen	ND	0.00		
Carbon Monoxide	ND	0.00		
Methane	83.61	68.05		
Ethane	8.98	13.69		
Propane	2.40	5.37		0.662
iso-Butane	0.21	0.61		0.068
n-Butane	1.79	5.27		0.565
iso-Pentane	0.13	0.47		0.047
n-Pentane	0.05	0.18		0.018
Hexanes Plus	0.30	1.29		0.122
Totals	100.00	100.00		1.482
Specific Volume, ft <sup>3</sup> /lb	19.24	Values Corrected for Compressibility	CHONS	Weight %
Compressibility (Z) Factor	0.9970		Carbon	73.842
Specific Gravity, Calculated	0.6806	0.6824	Hydrogen	22.177
<b>GROSS</b>				
BTU/ft <sup>3</sup> Dry	1149.9	1153.4	Oxygen	2.901
BTU/ft <sup>3</sup> Wet	1129.8	1133.2	Nitrogen	1.080
BTU/lb Dry	22124.8	22191.9	Sulfur	0.000
BTU/lb Wet	21737.6	21803.6	F FACTOR @	8675
<b>NET</b>				
BTU/ft <sup>3</sup> Dry	1040.8	1044.0	68 deg F, 35d/MMBTU	
BTU/ft <sup>3</sup> Wet	1022.6	1025.7	F FACTOR @	8545
BTU/lb Dry	20025.9	20086.7	68 deg F, 35d/MMBTU	
BTU/lb Wet	19675.4	19735.1		
Hydrogen Sulfide ppm		Tr<1	Method	GC/FPD
Total Sulfur ppm		Tr<1	Method	ASTM D 3246
Hydrocarbon Dew Point, deg F		Not Tested	Method	Bureau of Mines
Moisture, lbs H <sub>2</sub> O/MMCF		Not Tested	Method	Bureau of Mines

ND - None Detected

Tr - Trace

Aera Energy LLC  
S-43, Project 1080067

**ATTACHMENT III**  
AP-42 Tables 1.4-1 and 1.4-2

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION<sup>a</sup>

Pollutant	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
CO <sub>2</sub> <sup>b</sup>	120,000	A
Lead	0.0005	D
N <sub>2</sub> O (Uncontrolled)	2.2	E
N <sub>2</sub> O (Controlled-low-NO <sub>x</sub> burner)	0.64	E
PM (Total) <sup>c</sup>	7.6	D
PM (Condensable) <sup>c</sup>	5.7	D
PM (Filterable) <sup>c</sup>	1.9	B
SO <sub>2</sub> <sup>d</sup>	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

<sup>b</sup> Based on approximately 100% conversion of fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/10<sup>6</sup> scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO<sub>2</sub>, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10<sup>4</sup> lb/10<sup>6</sup> scf.

<sup>c</sup> All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM<sub>10</sub>, PM<sub>2.5</sub> or PM<sub>1</sub> emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

<sup>d</sup> Based on 100% conversion of fuel sulfur to SO<sub>2</sub>.

Assumes sulfur content is natural gas of 2,000 grains/10<sup>6</sup> scf. The SO<sub>2</sub> emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO<sub>2</sub> emission factor by the ratio of the site-specific sulfur content (grains/10<sup>6</sup> scf) to 2,000 grains/10<sup>6</sup> scf.

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>) AND CARBON MONOXIDE (CO)  
FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO <sub>x</sub> <sup>b</sup>		CO	
	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS) <sup>c</sup>	280	A	84	B
Uncontrolled (Post-NSPS) <sup>c</sup>	190	A	84	B
Controlled - Low NO <sub>x</sub> burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO <sub>x</sub> burners	50	D	84	B
Controlled - Low NO <sub>x</sub> burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> Expressed as NO<sub>x</sub>. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO<sub>x</sub> emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO<sub>x</sub> emission factor.

<sup>c</sup> NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

Aera Energy LLC  
S-43, Project 1080067

# **ATTACHMENT IV**

## Monthly Fuel Usage

Aera Energy LLC  
 Emission Reduction Credit Application  
 Lost Hills Section 15 Gas Plant  
 Hot Oil Heater - PTO S-43-15

Monthly Fuel Meter Readings

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<i>Lost Hills Gas Plant and Field Meters</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>	<i>MSCF</i>
2000	PLANT HEATER FUEL (Meter 9355)	3,355	3,132	3,359	2,882	3,143	2,560	2,618	2,642	2,705	3,157	3,282	3,927
2001	PLANT HEATER FUEL (Meter 9355)	3,984	3,645	3,759	3,450	3,194	1,935	2,626	2,306	2,544	2,628	2,621	2,768
2002	PLANT HEATER FUEL (Meter 9355)	2,888	2,660	2,752	3,023	2,862	2,128	2,033	2,266	2,271	2,475	2,471	2,899
2003	PLANT HEATER FUEL (Meter 9355)	3,188	2,794	3,032	2,759	3,136	2,742	2,651	2,756	2,615	2,725	2,833	2,971
2004	PLANT HEATER FUEL (Meter 9355)	3,253	3,148	3,197	3,159	3,115	2,614	3,000	3,124	3,083	3,188	3,420	3,371
2005	PLANT HEATER FUEL (Meter 9355)	2,441	0	0	0	0	0	0	0	0	0	0	0

Representative Period: 2003 & 2004

1Q Fuel Totals (mcf)	
2003	9014.0
2004	9598.0
Average	9306.0

2Q Fuel Totals (mcf)	
2003	8636.6
2004	8888.0
Average	8762.3

3Q Fuel Totals (mcf)	
2003	8022.0
2004	9207.0
Average	8614.5

4Q Fuel Totals (mcf)	
2003	8529.0
2004	9979.0
Average	9254.0

Quarterly Emissions (pounds)						
	Emission Factor (lb/mmcf)	1Q	2Q	3Q	4Q	
PM <sub>10</sub>	7.6	70.7	66.6	65.5	70.3	AP-42 Table 1.4-2 (total PM)
CO	84.0	781.7	736.0	723.6	777.3	Equivalent to 101 ppm CO (less than 400 ppm CO limit in Rule 1146)
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0	Sulfur content in fuel gas is negligible (< 1 ppm)
NO <sub>x</sub>	41.0	381.5	359.2	353.1	379.3	Based on 30 ppm NO <sub>x</sub> (Rule 1146 limit)
VOC	5.5	51.2	48.2	47.4	50.9	AP-42 Table 1.4-2

Quarterly Emissions (pounds)					
	Emission Factor (lb/mmcf)	1Q	2Q	3Q	4Q
After 10% AQI Reduction:					
PM <sub>10</sub>	7.6	63.7	59.9	58.9	63.3
CO	84.0	703.5	662.4	651.3	699.6
SO <sub>x</sub>	0.0	0.0	0.0	0.0	0.0
NO <sub>x</sub>	41.0	343.3	323.2	317.8	341.4
VOC	5.5	46.1	43.4	42.6	45.8

Aera Energy LLC  
S-43, Project 1080067

**ATTACHMENT V**  
Draft ERC Certificates



San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-1**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
44 lbs	43 lbs	42 lbs	46 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Saadati, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

## Emission Reduction Credit Certificate S-2782-2

ISSUED TO:           AERA ENERGY LLC  
ISSUED DATE:        <DRAFT>  
LOCATION OF            LOST HILLS GAS PLANT  
REDUCTION:          NE 15, T.27S, R.21E., M.D.B. & M.  
                          LOST HILLS, CA

For NO<sub>x</sub> Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
329 lbs	323 lbs	318 lbs	341 lbs

Conditions Attached

Method Of Reduction

Shutdown of Entire Stationary Source

Shutdown of Emissions Units

Other

shutdown of hot oil heater S-43-15

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

Sayed Saadoun, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-3**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
675 lbs	662 lbs	652 lbs	699 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

shutdown of hot oil heater S-43-15

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

Seyed Saadati, Executive Director / APCO

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

**Emission Reduction Credit Certificate**  
**S-2782-4**

ISSUED TO: AERA ENERGY LLC  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: LOST HILLS GAS PLANT  
NE 15, T.27S, R.21E., M.D.B. & M.  
LOST HILLS, CA

**For PM10 Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
61 lbs	60 lbs	58 lbs	63 lbs

Conditions Attached

Method Of Reduction

Shutdown of Entire Stationary Source

Shutdown of Emissions Units

Other

shutdown of hot oil heater S-43-15

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

Seyed Sadreem, Executive Director / APCD

**DRAFT**

David Warner, Director of Permit Services