

MAY - 6 2010

Gerardo C. Rios, Chief Permits Office (AIR-3) U.S. EPA - Region IX 75 Hawthorne St. San Francisco, CA 94105

Notice of Preliminary Decision – Title V Permit Renewal Re:

> District Facility # S-1543 **Project # S-1085285**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its Gas Plant in Taft, California.

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 45-day 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. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely.

**David Warner** 

**Director of Permit Services** 

**Attachments** 

C: Tim Bush, Permit Services Engineer

**Seved Sadredin** 

Executive Director/Air Pollution Control Officer



MAY - 6 2010

Mike Tollstrup, Chief Project Assessment Branch Air Resources Board P O Box 2815 Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Title V Permit Renewal

District Facility # S-1543 Project # S-1085285

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its Gas Plant in Taft , California.

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 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. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

**David Warner** 

**Director of Permit Services** 

**Attachments** 

C: Tim Bush, Permit Services Engineer

Seyed Sadredin

**Executive Director/Air Pollution Control Officer** 



MAY - 6 2010

John Haley Aera Energy LLC P O Box 11164 Bakersfield, CA 93389-1164

Re: Notice of Preliminary Decision - Title V Permit Renewal

District Facility # S-1543 Project # S-1085285

Dear Mr. Haley:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Aera Energy LLC for its Gas Plant in Taft , California.

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 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. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

**David Warner** 

**Director of Permit Services** 

**Attachments** 

C: Tim Bush, Permit Services Engineer

Seyed Sadredin

**Executive Director/Air Pollution Control Officer** 

# NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED RENEWAL OF THE FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Aera Energy LLC for its Gas Plant in Taft, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1085285. is available for public inspection http://www.yalleyair.org/notices/public notices idx.htm and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

# Final Title V Permit Renewal Evaluation Aera Energy LLC S-1543

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# TITLE V PERMIT RENEWAL EVALUATION Gas Plant

Engineer: Tim Bush

Date: April 8, 2010

Facility Number: S-1543

Facility Name: Aera Energy LLC Mailing Address: P O BOX 11164

Bakersfield, CA 93389-1164

Contact Name: John Haley

Phone: (661) 665-5000

Responsible Official: J.D. Story

Title: Process Supervisor

Project #: S-1085285

Deemed Complete: December 24, 2008

#### I. PROPOSAL

Aera Energy LLC was issued a Title V permit on December 31, 2004. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

The existing permit S-1543-4-19 has an active ATC to authorize regenerator settler surge vessels V-110/V-210 to vent to atmosphere via 28 ft high vent stack rather than the thermal oxidizer. The renewed PTO will include this modification prior to finalizing this Title V renewal.

The facility also requests to implement ATC S-1543-5-13 for the installation of a selective catalytic reduction system on the gas-fired turbine. The renewed PTO will include this modification prior to finalizing this Title V renewal.

#### II. FACILITY LOCATION

The Belridge Gas Plant is located at Section 32, Township 28S, Range 21E in Kern County, California.

### III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment A.

# IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

#### V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

#### VI. FEDERALLY ENFORCEABLE REQUIREMENTS

#### A. Rules Updated

- District Rule 2020, <u>Exemptions</u>
   (amended March 21, 2002 ⇒ amended December 19, 2002)
- District Rule 4101, <u>Visible Emissions</u>
   (amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4311, <u>Flares</u>

   (adopted June 20, 2002 ⇒ amended June 18, 2009)
- District Rule 4601, <u>Architectural Coatings</u>
   (October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4624, <u>Organic Liquid Loading</u>
   (amended December 17, 1992 ⇒ amended December 20, 2007)

- District Rule 4702, <u>Internal Combustion Engines</u>
   (adopted August 21, 2003 ⇒ amended January 18, 2007)
- District Rule 4703, <u>Stationary Gas Turbines</u>
   (adopted August 25, 2002 ⇒ amended September 20, 2007)
- District Rule 8011, <u>General Requirements</u> (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8021, <u>Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8031, <u>Bulk Materials</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8041, <u>Carryout and Trackout</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8051, <u>Open Areas</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8061, <u>Paved and Unpaved Roads</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8071, <u>Unpaved Vehicle/Equipment Traffic Areas</u> (adopted November 15, 2001 ⇒ amended September 16, 2004)
- 40 CFR Part 60, Subpart GG, <u>New Source Performance Standards</u>; <u>Standard of Performance for Stationary Gas Turbines</u> (amended February 24, 2006)
- 40 CFR Part 63, Subpart HH, <u>National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities</u> (amended December 22, 2008)
- 40 CFR Part 82, Subpart B, <u>Servicing of Motor Vehicle Air Conditioners</u> (amended June 18, 2008)
- 40 CFR Part 82, Subpart F, <u>Recycling and Emissions Reduction</u> (amended June 18, 2008)

#### B. Rules Removed

District Rule 4403, <u>Components Serving Light Crude Oil or Gases at Light Crude Oil and Gas Production Facilities and Components at Natural Gas Processing Facilities</u> (amended February 16, 1995) \*\*This rule expired on April 20, 2006 and has been superceded by District Rule 4409\*\*

#### C. Rules Added

- District Rule 4409, <u>Components At Light Crude Oil Production Facilities</u>, <u>Natural Gas Production Facilities</u>, <u>And Natural Gas Processing Facilities</u> (Adopted April 20, 2005)
- District Rule 4623, <u>Storage of Organic Liquids</u> (amended May 19, 2005)
- 40 CFR Part 63, Subpart ZZZZ <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u>
- 40 CFR Part 64, <u>Compliance Assurance Monitoring</u>

#### D. Rules Not Updated

- District Rule 2010, <u>Permits Required</u> (amended December 17, 1992)
- District Rule 2031, <u>Transfer of Permits</u> (amended December 17, 1992)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended December 19, 2002)
- District Rule 2070, <u>Standards for Granting Applications</u> (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 4201, <u>Particulate Matter Concentration</u> (amended December 17, 1992)

- District Rule 4202, <u>Particulate Matter Emission Rate</u> (amended December 17, 1992)
- District Rule 4701, <u>Internal Combustion Engines</u> (amended August 21, 2003)
- 40 CFR 60, Subpart KKK, <u>Standards of Performance for Onshore Natural</u>
   Gas Processing Plants (amended October 17, 2000)
- 40 CFR 60, Subpart LLL, <u>Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions</u> (amended October 17, 2000)
- 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u> (amended September 18, 2003)

#### VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

#### A. Rules Not Updated

- District Rule 1100, Equipment Breakdown (amended December 17,1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2520, <u>Federally Mandated Operating Permits</u> (amended June 21, 2001)
- District Rule 4102, Nuisance (as amended December 17, 1992).
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)

#### VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit or most recent renewal.

# A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which are specifically exempt from obtaining permits and specifies record keeping requirements to verify such exemptions. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

### B. District Rule 4101 - Visible Emissions

The provisions of this rule shall apply to any source operation which emits or may emit air contaminants.

<u>Section 5.0</u> prohibits the discharge into the atmosphere from any single source of emission whatsoever, any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

Condition 23 of permit unit '-0-3 ensures compliance.

#### C. District Rule 4311 – Flares

S-1543-7-11 and '-33-9: Flares

The purpose of this rule is to limit the emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NOx) from the operation of flares.

The following analysis shows that the proposed requirement of District Rule 4311 (Amended June 18, 2009) is more stringent than District Rule 4311 (Adopted June 20, 2002). Streamlining procedures, as documented in the following steps is utilized to substitute the proposed set of requirements for the otherwise applicable requirements.

Comparison of the latest amended version (amended June 18, 2009) of District Rule 4311 and the current SIP approved version, adopted June 20, 2002

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
APPLICABILITY		
This rule is applicable to operations involving the use of flares.	x	х
DEFINITIONS		
Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.	X	x
Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).		х
Air Resources Board (ARB): as defined in Rule 1020 (Definitions).		×
British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59 F to 60 F at one atmosphere.		х
Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.		X
Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface □nspiriting air into the gas to promote combustion.		x
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable event beyond the control of the operator. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.	х	
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not quality as an emergency. An emergency situation requires immediate corrective action to		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.		
Major Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).	х	
MMBtu: million British thermal units.		x
Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares, that by design, provide excess air at the flare tip.	x	х
NO <sub>x</sub> : any nitrogen oxide compounds	×	x
Open Flare: a vertically or horizontally oriented open pipe flare from which gases are released into the air before combustion is commenced.	X	х
Operator: includes, but not limited to, any person who owns, leases, supervises, or operates a facility.		х
Petroleum Refinery: a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining. For the purpose of this rule, all portions of the petroleum refining operation, including those at non-contiguous locations operating flares, shall be considered as one petroleum refinery.		. x
Pilot: an auxiliary burner used to ignite the vent gas routed to a flare.		х
Pilot Gas: the gas used to maintain the presence of a flame for ignition of vent gases.		х
Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual		
occurrence, or is scheduled to occur. The operation of a flare for the purpose of performing equipment maintenance provided it does not exceed 200 hours per calendar year, or during compliance source testing or visible emission inspections is not considered planned flaring. Planned flaring includes, but is not limited to, the following flaring activities:	<b>. X</b>	
Oil or gas well tests, well related work, tests ordered by a regulatory agency.		
Equipment depressurization for maintenance purposes.		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Equipment start-up or shutdown.		
Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.		
Flaring of off-specification gas (i.e. non PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.		
Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following flaring activities:		
Oil or gas well tests, well related work, tests ordered by a regulatory agency.		
Equipment depressurization for maintenance purposes.		
Equipment start-up or shutdown.		X
Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.		<b>^</b>
Flaring of off-specification gas (i.e. non-PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.	·	
The operation of a flare for the purpose of performing equipment maintenance.	·	
Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.		х
Public Utilities Commission (PUC) Quality Gas: any gaseous fuel, gas containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.	x	X
Purge Gas: Nitrogen, carbon dioxide, liquefied petroleum gas, or natural gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide	х	х

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
sufficient exit velocity to prevent any regressive flame travel back into the flare header.		
Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.		Х
Reportable Flaring Event: any flaring where more than 500,000 standard cubic feet of vent gas is flared per calendar day, or where sulfur oxide emissions are greater than 500 pounds per calendar day. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 6.8 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 6.8, a reportable flaring event ends when the rate of flow of vent gas falls below 0.12 feet per second.		X
Representative Sample: a sample of vent gas collected from the location as approved for flare monitoring and analyzed utilizing test methods specified in Section 6.3.4.		x
Shutdown: the procedure by which the operation of a process unit or piece of equipment is stopped due to the end of a production run, or for the purpose of performing maintenance, repair and replacement of equipment. Stoppage caused by frequent breakdown due to poor maintenance or operator error shall not be deemed a shutdown.		· <b>x</b>
Startup: the procedure by which a process unit or piece of equipment achieves normal operational status, as indicated by such parameters as temperature, pressure, feed rate and product quality.		X
Steam-Assisted Flare: a combustion device where steam is injected into the combustion zone to promote turbulence for the mixing of the combustion air before it is introduced to the flame.		x
Thermal oxidizer: an enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.		×
Total Organic Gases (TOG): all hydrocarbon compounds containing hydrogen and carbon with or without other chemical elements.	X	×
Turnaround: a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair, replacement of equipment or installation of new equipment.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Vent Gas: any gas directed into a flare, excluding assisting air or steam, flare pilot gas, and any continuous purge gases.		<b>x</b> .
Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).	x	х
Water Seal: a liquid barrier, or seal, to prevent the passage of gas. Water seals provide a positive means of flash-back prevention in addition to enabling the upstream flare system header to operate at a slight positive pressure at all times.		x
EXEMPTIONS		
Flares operated in municipal solid waste landfills subject to the requirements of Rule 4642 (Solid Waste Disposal Sites) are exempt from this rule.		
Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal Waste Landfills), or Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) are exempt from this rule.	X	X
Except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of Nox.		x
REQUIREMENTS	3	
The operator of any source subject to this rule shall comply with the following requirements:		
Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.		
The flame shall be present at all times when combustible gases are vented through the flare.	x	x
The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.		
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent	X	

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		×
Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.	x	<b>X</b>
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18.	· x	:
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.		X
Ground-level enclosed flares shall meet the following emission standards:		
Flares without Steam Assist  Heat Release Rate: <10 MMBtu  VOC limit = 0.0051 (lb/MMBtu)  Nox limit = 0.0952 (lb/MMBtu)		
Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu)	X	X
Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu)		
Flares with Steam Assist		
All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)		
Flare Minimization Plan  Effective on and after July 1, 2011, flaring is prohibited		x

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.		
Petroleum Refinery SO <sub>2</sub> Performance Targets	-	
Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.	·	x
Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.	·	
Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.		x
Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.		x
ADMINISTRATIVE REQUIREMENTS		
Compliance Determination	·	
Upon request the operator of flares that are subject to Section 5.6 shall make available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5).	x	<b>x</b>
The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing.		
For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.		
Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.		
Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.		
Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.		<b>X</b>
Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Flare Reporting		
Unplanned Flaring Event		
Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.		
Reportable Flaring Event		
Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following:  The results of an investigation to determine the		x
primary cause and contributing factors of the flaring event;		
Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented;		
If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and		
The date, time, and duration of the flaring event.		
Annual Monitoring Report		
Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
shall include the following:		
The total volumetric flow of vent gas in standard cubic feet for each day.		
Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6.		
If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month.		
If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.	·	
For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow.		
Flare monitoring system downtime periods, including dates and times.	·	
For each day and for each month provide calculated sulfur dioxide emissions.		
A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5.		·
Test Methods		
The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.	· .	·
VOC, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per	x	x

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million Btu (lb/MMBtu) by using the following equation:		
VOC in lb/MMBtu = $\frac{(ppmv  dry)  x  (F, dscf / MMBtu)}{(1.135  x  10^6)  x  (20.9 - \%O_2)}$		
Where: F = As determined by EPA Method 19		
NOx emissions in pounds per million BTU shall be determined by using EPA Method 19.		
NOx and O₂ concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.		
Testing and Sampling Methods for Flare Monitoring		
Effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:		
Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,		
Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.	·	
If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.		x
If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.		
Flow Verification Test Methods		
For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:		x
EPA Methods 1 and 2;		

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A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.		
Tracer gas dilution or velocity.		
Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.		
Flare Minimization Plan		
By July 1, 2010, the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:		
A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.		
Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.		
A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.		
An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.		<b>X</b>
An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring though the recovery, treatment and use of the gas or other means.		
An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine		

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the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.	. *	
Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.		
Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.		
An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if:		
The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and		
The ATC is deemed complete after June 18, 2009, and		
The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.		
When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.		
Vent Gas Composition Monitoring		
Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section		×

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6.6.1 through Section 6.6.5 as appropriate.		
Sampling that meets the following requirements:		
If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours.	· · ·	
Samples shall be analyzed pursuant to Section 6.3.4.		
Integrated sampling that meets the following requirements:		
If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less.	· .	
Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to Section 6.6.2.1, a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours.		·
Samples shall be analyzed pursuant to Section 6.3.4.		
Continuous analyzers that meet the following requirements:		
The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur.		
The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon.		
Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale.		
Continuous analyzers employing gas chromatography that meet the following requirements:		1.

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The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide.	-	
The gas chromatography system shall be maintained to be accurate within 5% of full scale.		
Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested pursuant to a method in Section 6.3.4.		
If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header.		
The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11.		
Pilot and Purge Gas Monitoring		
Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored.		
Water Seal Monitoring		
Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall monitor and record the water level and pressure of the water seal that services each flare daily or as specified on the Permit to Operate.		
General Monitoring		
Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable:		
Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring		

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system inoperation do not include the periods when the system feeding the flare is not operating.		
During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices.		
Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure.		
All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages.		
Video Monitoring		
Effective on and after July 1, 2011, the operator of a petroleum refinery flare shall install and maintain equipment that records a real-time digital image of the flare and flame at a frame rate of no less than one frame per minute. The recorded image of the flare shall be of sufficient size, contrast, and resolution to be readily apparent in the overall image or frame. The image shall include an embedded date and time stamp. The equipment shall archive the images for each 24-hour period. In lieu of video monitoring the operator may use an alternative		
monitoring method that provides data to verify date, time, vent gas flow, and duration of flaring events.		

Section 5.0 lists the operational requirements of flares. Conditions 11, 13, 14, 15, 17, 18, 20, and 21 of permit unit -7-11 ensure compliance. Conditions 3, 4 and 5 of permit unit '-33-9 ensure compliance.

<u>Section 6.1</u> specifies the recordkeeping requirements. Conditions 9, 10, and 11 of permit unit '-7-11 ensure compliance.

# D. District Rule 4409 - Components At Light Crude Oil Production Facilities, Natural Gas Production Facilities, And Natural Gas Processing Facilities

The purpose of this rule is to limit VOC emissions from leaking components at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities.

#### a. S-1543-4-21: Gas Plant

Section 5.1.1 requires that an operator shall not use any component that leaks in excess of the applicable leak standards of this rule, or that is found to be in violation of the provisions specified in Section 5.1.3. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this rule. Conditions 32 through 34 of permit '-4-21 assure compliance.

Section 5.1.2 requires that each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. Condition 36 of permit '-4-21 assures compliance.

Section 5.1.3.1.1 specifies that the operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.1.4 exist at the facility.

Section 5.1.3.1.2 goes on to specify that notwithstanding the provision of Section 5.1.3.1.1, minor gas leaks from polished rod stuffing boxes (PRSB) found during any District inspection shall not be counted toward determination of compliance with this rule provided the operator repairs, replaces, or removes leaking PRSB from VOC service as soon as practicable but not later than the time frame specified in this rule. Condition 35 of permit '-4-21 assures compliance.

Section 5.1.3.2.1 specifies that except for annual operator inspections described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not

constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. Condition 36 of permit '-4-21 assures compliance.

Section 5.1.3.2.2 specifies that leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. Condition 37 of permit '-4-21 assures compliance.

Section 5.1.3.2.3 specifies that any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.6, 5.2.7, 5.2.8, or 5.2.9) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. Condition 38 of permit '-4-21 assures compliance.

Section 5.1.4 specifies that for the purpose of this rule, a component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 exist at the facility.

Section 5.1.4.1 specifies that a component shall be considered leaking if an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. Condition 39 of permit '-4-21 assures compliance.

Section 5.1.4.2 specifies that a component shall be considered leaking with a major liquid leak (defined as a visible mist or a continuous flow of liquid that is not seal lubricant). Condition 40 of permit '-4-21 assures compliance.

Section 5.1.4.3 specifies that a component shall be considered to have a gas leak if emissions are greater than 50,000 ppmv as methane. Condition 41 of permit '-4-21 assures compliance.

Section 5.1.4.4 specifies that a component shall be considered leaking if a component has a leak described in Sections 5.1.4.4.1 through 5.1.4.4.3 and numbering in excess of the maximum allowable number or percent specified in Table 2. Conditions 42 through 50 of permit '-4-21 assure compliance.

Section 5.2.1 requires that for manned light oil production facilities, gas production facilities, and gas processing facilities, an operator shall audiovisually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, pressure relief valves (should say PRDs instead of PRVs) in service at least once every 24 hours except when operators do not report to the facility for that given 24 hours. Condition 51 of permit '-4-21 assures compliance.

Section 5.2.2 requires that for unmanned light oil production facilities, gas production facilities, or gas processing facilities, the operator shall audio-visually inspect for leaks all accessible operating pumps, compressors, PRDs in service at least once per calendar week. Condition 52 of permit '-4-21 assures compliance.

Section 5.2.3 requires that any audio-visual inspection of all accessible operating pumps, compressors, and PRDs performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected using the test method specified in Section 6.3.1 not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule. Condition 53 of permit '-4-21 assures compliance.

Section 5.2.4 requires that notwithstanding the requirements of Sections 5.2.1, 5.2.2, and 5.2.3, the operator shall inspect all components using the test method specified in Section 6.3.1 at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components, or pipes. Inaccessible components and unsafe-to-monitor components shall be inspected in accordance with the provisions of Sections 5.2.6 and 5.2.7, respectively. Pipes shall be inspected in accordance with the provisions of Section 5.2.8. Condition 54 of permit '-4-21 assures compliance.

Section 5.2.5 requires that the operator shall inspect, immediately after placing into service, all new, replaced, or repaired fittings, flanges, and threaded connections using the test method specified in Section 6.3.1. Condition 54 of permit '-4-21 assures compliance.

Section 5.2.6 requires that the operator shall inspect all inaccessible components at least once every 12 months using the test method specified in Section 6.3.1. Condition 56 of permit '-4-21 assures compliance.

Section 5.2.7 requires that the operator shall inspect all unsafe-to-monitor components during each turnaround using the test method specified in Section 6.3.1. Condition 57 of permit '-4-21 assures compliance.

Section 5.2.8 requires that the operator shall visually inspect all pipes for leaks at least once every 12 months. Condition 58 of permit '-4-21 assures compliance.

Section 5.2.8.1 requires that any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected using the test method specified in Section 6.3.1 within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule. Condition 59 of permit '-4-21 assures compliance.

Section 5.2.8.2 requires that the operator may conduct the annual pipe inspection required by Section 5.2.8 in conjunction with the annual pipe inspection required by the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities). Records of annual pipe inspection required by DOGGR or SPCC may be used to document the inspection required by Section 5.2.8. The operator shall maintain the records of such inspections at the facilities. The records shall be made available to the APCO, ARB, and US EPA upon request. Condition 60 of permit '-4-21 assures compliance.

Section 5.2.9 requires that notwithstanding the requirement of Section 5.2.4, the operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, or an operator who is already on an annual inspection frequency on or before (rule adoption date) may apply for a written approval from the APCO to continue conducting annual inspections for a component type, provided the operator meets all the criteria specified in Sections 5.2.9.1 through 5.2.9.3. This approval shall apply to accessible component types specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. Sections 5.2.9.1 through 5.2.9.3 specify the following requirements:

- The operator was not in violation of any provision of Sections 5.1 during five consecutive quarterly inspections for that component type.
- The operator did not receive a Notice of Violation from the APCO during the previous 12 months violating any provisions of this rule for that component type.
- The written request shall include pertinent documentation to demonstrate that the operator has successfully met the requirements of Sections 5.2.9.1 and 5.2.9.2.
- The annual inspection frequency approved by the APCO pursuant to Section 5.2.9 shall revert to quarterly inspection frequency for a component type if either one of the following occurs:
- The operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2, or 5.3 exists for that component type; or
- The APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type.

Condition 61 of permit '-4-21 assures compliance.

Section 5.2.10 requires that the annual inspection frequency approved by the APCO pursuant to Section 5.2.9 shall revert to quarterly inspection frequency for a component type if either one of the following occurs:

- The operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2, or 5.3 exists for that component type; or
- The APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type.

Condition 62 of permit '-4-21 assures compliance.

Section 5.2.11 requires that when the inspection frequency changes from annual to quarterly inspections pursuant to Section 5.2.10, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency. The written notification shall include the reason(s) and date of change to quarterly inspection frequency. Condition 61 of permit '-4-21 assures compliance.

Section 5.2.12 requires that the operator shall initially inspect a PRD that releases to the atmosphere using the test method specified in Section 6.3.1 as soon as practicable but not later than 24 hours after the time of the release. The operator shall reinspect the PRD using the test method

specified in Section 6.3.1 not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release and is leak-free (is leak free should not be in this statement). If the PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. Condition 62 of permit '-4-21 assures compliance.

Section 5.2.13 requires that except for PRDs subject to the requirements of Section 5.2.12, a component shall be inspected not later than 15 calendar days after repairing the leak or replacing the component using the test method specified in Section 6.3.1. Condition 63 of permit '-4-21 assures compliance.

Section 5.2.14 requires that a District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered a willful circumvention of the rule and is a violation of this rule. Condition 64 of permit '-4-21 assures compliance.

Section 5.3.1 requires that upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall meet the following requirements:

- The tag shall remain affixed to the component until all the conditions specified in Sections 5.3.2.1 through 5.3.2.3 have been met.
- The leaking component has been repaired or replaced; and
- The component has been re-inspected using the test method in Section 6.3.1; and
- The component is found to be in compliance with the requirements of this rule.

The tag shall include the following information:

- Date and time of leak detection.
- Date and time of leak measurement.
- For gaseous leaks, indicate the leak concentration in ppmv.
- For liquid leaks, indicate whether it is a major liquid leak or a minor liquid leak.
- For essential components, unsafe-to-monitor components, or critical components, so indicate on the tag.

Condition 66 of permit '-4-21 assures compliance.

Section 5.3.4 requires that an operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. Conditions 66 and 67 of permit '-4-21 assure compliance.

Section 5.3.5 requires that if the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall comply with at least one of the requirement of Sections 5.3.5.3, 5.3.5.4 or 5.3.5.5 as soon as practicable but not later than the time period specified in Table 3.

- The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the repair period specified in Table 3.
- 2) The start of the repair period shall be the time of the initial leak detection.
- 3) Repair or replace the leaking component; or
- 4) Vent the leaking component to a closed vent system as defined in Section 3.0.
- 5) Remove the leaking component from operation.

Conditions 67 of permit '-4-21 assures compliance.

Section 5.3.5 further states that for each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest integer where required. Condition 68 of permit '-4-21 assures compliance.

Section 5.3.6 requires that if the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall: Minimize the leak within one hour after detection of leaks; and If the leak has been minimized, but the leak still exceeds the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. Condition 69 of permit '-4-21 assures compliance.

Section 5.3.7 requires that for any component that has incurred five repair actions for major gas leaks or major liquid leaks, or combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in

Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. Condition 70 of permit '-4-21 assures compliance.

Section 5.4.1 requires that all major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or the APCO to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. Condition 71 of permit '-4-21 assures compliance.

Section 6.1.1 requires that by October 20, 2005, an operator whose existing components are either subject to this rule or whose existing components are exempt pursuant to Section 4.2 of this rule on or before April 20, 2005 shall submit an Operator Management Plan (OMP) for approval by the APCO. This compliance issue has already been addressed, and therefore no condition will need to be listed on the permit to ensure compliance.

Section 6.1.2 requires that the operator shall keep a copy of the APCO-approved Operator Management Plan at the facility and make it available to the APCO, ARB, and US EPA upon request. Condition 72 of permit '-4-21 assures compliance.

Section 6.1.3 requires that the operator shall describe in the Operator Management Plan all components subject to this rule and all components that are exempt pursuant to Section 4.2 of this rule. The Plan shall contain a description of the procedures that the operator will use to comply with the requirements of this rule. This compliance issue has already been addressed, and therefore no condition will need to be listed on the permit to ensure compliance.

Section 6.1.4 requires that by January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. Condition 73 of permit '-4-21 assures compliance.

Section 6.2.1 requires that the operator shall maintain an inspection log containing, at a minimum, all of the following information:

- 1) Total number of components inspected, and total number and percentage of leaking components found by component types.
- 2) Location, type, name or description of each leaking component and description of any unit where the leaking component is found.
- 3) Date of leak detection and method of leak detection.
- 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak.
- 5) Date of repair, replacement, or removal from operation of leaking components.
- 6) Identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
- 7) Methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
- 8) After the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv.
- 9) Inspector's name, business mailing address, and business telephone number.
- 10) The facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log.

Condition 74 of permit '-4-21 assures compliance.

Section 6.2.2 requires that records of leaks detected during quarterly or annual operator inspection, and each subsequent repair and re-inspection, shall be submitted to the APCO, ARB, and US EPA upon request. Condition 75 of permit '-4-21 assures compliance.

Section 6.2.3 requires that records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date,

and calibration gas cylinder pressure at the time of calibration. Condition 76 of permit '-4-21 assures compliance.

Section 6.2.4 requires that copies of all records required by Section 6.2 of this rule shall be retained for a minimum of five (5) years after the date of an entry, and the records shall be made available to the APCO, ARB, and US EPA upon request. Condition 77 of permit '-4-21 assures compliance.

Equivalent test methods other than specified in Sections 6.3.1 through 6.3.8 may be used provided such test methods have received prior approval from the EPA, ARB, and APCO.

Section 6.3.1 requires that measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Condition 78 of permit '-4-21 assures compliance.

Section 6.3.2 requires that the VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. Condition 79 of permit '-4-21 assures compliance.

Section 6.3.3 requires that the percent by volume liquid evaporated at 150 °C shall be determined using ASTM Method D 86-82. Condition 80 of permit '-4-21 assures compliance.

Section 6.3.4 requires that the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix A. Appendix A is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. Condition 81 of permit '-4-21 assures compliance.

Section 6.3.5 requires that the API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287-92 (2000) e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method) or ASTM 1298-85 (Standard Practice for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum

Products by Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057-95 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products". Condition 82 of permit '-4-21 assures compliance.

Section 6.3.6 requires that the control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. Condition 83 of permit '-4-21 assures compliance.

Section 6.3.7 requires that halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". Condition 84 of permit '-4-21 assures compliance.

### E. District Rule 4601 - Architectural Coatings

This rule limits the emissions of VOCs from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). The rule was amended in December 17, 2009.

The current rule differs significantly from the previously SIP approved 9/17/97 version. The following changes included in the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit S-1543-0-3, no further evaluation is needed.

### Section 2.0 – Applicability

The phrase "blends or repackages" was added to rule language to extend the applicability of rule language to facilities involved in those activities.

### Section 3.0 – Definitions

Numerous definitions was added, deleted or modified in order to make the amended rule harmonize with definitions and rule requirements presented in the California Air Resources Board (ARB) Suggested Control Measures (SCM).

### Section 4.0 – Exemptions

A reporting requirement was added for any architectural coating that is sold in a container with a volume of one liter or less. The exemption for architectural coatings was further defined by adding "coatings that are supplied and offered for sale" to current language, in order to make the rule consistent with the ARB SCM.

### Section 5.0 – Requirements

The amended rule implements the recommended VOC limits per the ARB SCM. The following changes were as follows: 15 coating categories were eliminated, ten were added, nineteen coatings categories remained unchanged, and the VOC content limits for 19 categories were lowered.

### Section 6.0 – Administrative Requirements

Section 6.1 - Labeling Requirements

Labeling requirements were updated to add new labeling standards consistent with new coatings categories per the SCM.

### Section 6.2 - Reporting Requirements

A new section was added to include reporting requirements per the SCM. The SCM contains a new requirement to submit sales data. Collection of this data is authorized in the California Health and Safety Code which requires submission of data to estimate emissions.

#### Section 6.3 - Test Methods

New sections were added to coincide with new coating categories pursuant to the ARB SCM.

### Section 7.0 – Compliance Schedule

This section was updated to account for the new amendments to rule language by adding the phrase "the dates specified within the text of the rule."

Section 8.0 – Averaging Compliance Option This section was deleted in its entirety.

### a. S-1543-0-3 – Facility-Wide Requirements

 Conditions 24, 25, and 26 on the proposed permit assure compliance with this rule.

### F. District Rule 4623 - Storage Of Organic Liquids

This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

Section 5.1.1 requires that an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1.

Table 1 states that the required control device for a Group A sized methanol tank (1,100 - 39,600 gallons) with a vapor pressure between 0.5 and 11 psia (vapor pressure of Methanol is 2.5 psia), is the use of a pressure relief valve.

Section 5.2 specifies the requirements for the pressure relief valve.

The pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure.

### a. <u>S-1543-43-1</u>: <u>Methonal Tank</u>

Conditions 2 through 5 of permit unit '-43-1 ensures compliance with this rule.

### G. District Rule 4624 - Organic Liquid Loading

Section 5.9 was added to addresses leak inspection requirements. Section 5.9.1 requires the operator to inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using a portable.

The requirements of Section 5.9 shall not apply to equipment or components subject to Rule 4409 (Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities).

### S-1543-8-7: 60,000 Gallon LGP and Natural Gas Truck Load

Conditions 1, 2, 3, 4, 5, 7, 12, 13, 16, 17, and 23 of permit unit '-8-7 ensure continued compliance.

### H. District Rule 4702 - Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides  $(NO_x)$ , carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

### <u>S-1543-25-5, '-26-4, and '-27: Natural Gas Fired IC Engines</u>

Section 5.1 specifies NOx, CO, and VOC limits. The emissions for these engines are well below the stated limits. Condition 12 of permit unit '-25-5, condition 13 of permit '-26-4, and condition 11 of permit '-27-4 ensures compliance.

Section 5.6.1 requires that a spark-ignited non-emergency IC engine with an external control device install continuous emissions monitoring or an alternative monitoring system approved by the APCO to measure NOx and CO emissions. Both engines are using an APCO approved alternative monitoring system. Conditions 13 through 15 of permit units '-25-5, permit conditions 14 through 16 of permit '-26-4, and permit conditions 12 through 14 of permit '-27-4 ensure compliance.

Section 5.6.2 applies to engines not subject to 5.6.1. This requirement is not applicable.

Section 5.6.3 requires the alternative monitoring system to be approved by the APCO. The existing alternative monitoring is District approved, satisfying this requirement.

Section 5.6.4 applies only to engines using CEMS, and is therefore not applicable.

Section 5.6.5 requires that data gathering and retrieval systems for the alternative monitoring system is approved by the APCO. The existing alternative monitoring is District approved, satisfying this requirement.

Section 5.6.6 requires the installation and operation of a nonresettable elapsed operating time meter or an approved alternative. Condition 10 of permit unit '-25-5, condition 11 of permit unit '-26-4, and condition 9 of permit unit '-27-4 ensure compliance.

Section 5.6.7 requires the implementation of the Inspection and Monitoring (I&M) plan. This has already been satisfied.

Section 5.6.8 requires that data collected through the I&M plan are in a form approved by the APCO. This has already been satisfied.

Section 5.6.9 specifies how NOx measurements should be taken with a portable analyzer. Conditions 13 through 15 of permit '-25-5, conditions 14 through 16 of permit '-26-4, and permit conditions 12 through 14 of permit '-27-4 ensure compliance.

Section 5.6.10 requires documentation to ensure that operating within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits. Compliance is assured with conditions 13 through 15 of permit '-25-5, conditions 14 through 16 of permit '-26-4, and permit conditions 12 through 14 of permit '-27-4, which provides direct emission measurements from the exhaust stack.

Section 5.6.11 applies only to Permit Exempt Equipment Registrations and is therefore not applicable.

Section 5.7 is not applicable. It only applies to compression-ignited engines, spark-ignited engines at agricultural operations, and engines subject to Section 4.2.

Section 5.8 is not applicable. It only applies to Permit Exempt Equipment Registrations.

Section 6.1 requires the initial submittal of an Emissions Control Plan to bring the engines into compliance with Rule 4702. This has already been satisfied.

Section 6.2 requires monthly record keeping of the following for at least five years: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with this rule. Condition 25 of permit '-24-5, condition 26 of permit '-26-4, and condition 24 of permit '-27-4 ensures compliance.

Section 6.3 requires source testing at least once every 24 months at conditions representative of normal operations or conditions with the following parameters:

- Arithmetic average of three 30-consecutive minute test runs.
- Failed if two of the three runs are above the applicable limit

- VOC reported as methane
- VOC, NOx, and CO reported in ppmv, correct to 15% O2.

Conditions 17 and 18 of permit '-25-5, conditions 18 and 19 of permit '-26-4, and conditions 16 and 17 of permit '-27-4 ensures compliance.

Section 6.4 specifies source test methods. Compliance is assured by condition 19 of permit '-25-5, condition 20 of permit '-26-4, and condition 18 of permit '-27-4.

Section 6.5 requires submittal of an Inspection and Monitoring (I&M) plan to demonstrate compliance with the rule and also requires that the District be notified of any changes in operation no later than 14 days after the change for approval. The initial I&M plan has already been satisfied through District inspection. In addition, condition 26 of permit '-25-4, condition 27 of permit '-26-4, and condition 25 of permit '-27-4 ensures compliance with the notification requirement.

Section 7 specifies dates engines are required to come into compliance with Rule 4702. Since all engines at this facility are already in compliance with this rule, this section is not applicable. In addition, this section also clarifies that engines subject to this rule are no longer subject to Rule 4701; therefore, references to Rule 4701 have been removed from permits '-25-5, '-26-4, and '-27-4.

Section 8 contains provisions for Alternative Emission Control Plans (AECP). This section is not applicable, since AECPs are not being used.

Section 9 contains exhaust control system certification requirements. Since these engines are not using exhaust control system certifications to demonstrate compliance with this rule, this section is not applicable.

### I. District Rule 4703-Stationary Gas Turbines

This rule applies to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour.

Section 5.1.3 requires the owner or operator to meet the applicable emission limits of Table 5-3, Tier 3 NOx Compliance Limits. Conditions 6 and 7 of permit units '-5-12 and '-6-12 ensure compliance.

Section 5.2 requires the owner or operator to meet 250 ppmvd CO @ 15% O<sub>2</sub>. Conditions 6 and 7 of permit units '-5-12 and '-6-12 ensure compliance.

Section 5.3 states that on or after the compliance due date the applicable emission limits will not be applicable during a transitional operational period. Section 3.33 defines the transitional operational period as any of the bypass transition period, primary re-ignition period, reduced load period, startup, or shutdown. Condition 3 of permit units '-5-12 and '-6-12 ensures compliance.

Section 6.1 requires that the owner or operator of any existing stationary gas turbine system, unless exempted in Section 6.1.5, shall submit, to the APCO for approval, an emissions control plan of all actions, including a schedule of increments of progress, which will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0. This has already been satisfied.

Section 6.2 requires the owner or operator, for the turbines with exhaust gas NOx control devices, to either install, operate, and maintain continuous emissions monitoring system (CEMS) for NOx and O<sub>2</sub>, or install and maintain one or more of the pre-approved alternate monitoring methods given in Sections 6.2.1.1 through 6.2.1.7. Conditions 14, 15, and 16 of permit units '-5-12 and '-6-12 ensure compliance.

Section 6.2.4 requires the owner or operator to maintain all records for a period of five year from the date of data entry and shall make such records available to the APCO upon request. Conditions will be included to satisfy compliance with this section. Condition 18 of permit units '-5-12 and '-6-12 ensures compliance.

Section 6.2.5 requires the owner or operator to submit information correlating the control system operating parameters to the associated NOx output. This information may be used by the APCO to determine compliance when there is no continuous emission monitoring system for NOx available or when the continuous emission monitoring system is not operating properly. Condition 16 of permit units '-5-12 and '-6-12 ensures compliance.

Section 6.2.6 requires the owner or operator to maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used (liquid/gas).

Section 6.2.8 requires that the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown. Condition 24 of permit units '-5-12 and '-6-12 ensures compliance.

Section 6.3.1 requires that the owner or operator of any stationary gas turbine systems subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NOx and CO concentrations. Section 6.3.3 requires the owner or operator of any unit with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. Condition 11 of permit units '-5-12 and '-6-12 ensures compliance.

Section 6.4 identifies various test methods to measure NOx CO, O<sub>2</sub>, HHV and LHV of gaseous fuels. This has already been satisfied.

Section 7.3 requires that all owners or operators shall demonstrate and maintain compliance with the applicable provisions of Sections 5.0 and 6.0 in accordance with the following compliance schedule: This has already been satisfied.

### J. District Rule 8011 - General Requirements

The purpose of Regulation VIII (Fugitive PM10 Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM10) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. The provisions of this rule are applicable to specified outdoor fugitive dust sources.

Conditions 29 through 34 of permit '-0-3 ensure compliance with the requirements of Rule 8011.

## K. District Rule 8021 - <u>Construction, Demolition, Excavation, Extraction,</u> and <u>Other Earthmoving Activities</u>

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site.

<u>Section 5.0</u> requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit VDE to 20% opacity.

Compliance with the provisions of this rule is ensured by condition 29 of permit '-0-3.

### L. District Rule 8031 - Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit VDE to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011.

Compliance with the provisions of this rule is ensured by condition 30 of permit '-0-3.

### M. District Rule 8041 - Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Compliance with the provisions of this rule is ensured by condition 31 of permit '-0-3.

### N. District Rule 8051 - Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas.

This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Compliance with the provisions of this rule is ensured by condition 32 of permit '-0-3.

### O. District Rule 8061 - Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

Compliance with the provisions of this rule is ensured by condition 33 of permit '-0-3.

### P. District Rule 8071 - <u>Unpaved Vehicle/Equipment Traffic Area</u>

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria.

This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

Compliance with the provisions of this rule is ensured by condition 34 of permit '-0-3.

## Q. 40 CFR Part 60, Subpart GG, <u>Standard of Performance for Stationary</u> Gas Turbines

This requirement limits emissions of nitrogen oxides. Emissions shall not exceed a NO<sub>x</sub> emission rate of 75 ppmv or 150 ppmv, depending on the unit size (at 15% O<sub>2</sub> with the ISO correction factor). The following analysis shows

that the proposed requirement of District Rule 4703 is more stringent than 40 CFR requirements pertaining to  $NO_x$  emissions. Streamlining procedures, as documented in the following steps is utilized to substitute the proposed set of requirements for the otherwise applicable requirements.

The following table has side-by-side comparison of applicable requirements:

Type of Requirement	District Rule 4703	Subpart GG, § 60.332, 60.333 and 60.334	Proposed Requirement
Emissions Limit	Section 5.1.3 - for < 3 MW, 9 ppmv @ 15% O <sub>2</sub> . (Tier 3 Standard Option)	60.332(a)(1) – 75 ppmv @ 15% O <sub>2</sub> . (Lowest possible concentration) 60.333(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015% by volume at 15% oxygen and on a dry basis.	9.0 ppmv @ 15% O <sub>2</sub>
Work place standards	N/A	60.333(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel, which contains sulfur in excess of 0.8% by weigh (8000 ppmw).	This unit shall be fired exclusively on PUC-quality natural gas which has a total sulfur content of less than or equal to 1.0 gr/100 scf
Monitoring	(6.2.1) Except for units subject to Section 6.2.3, for turbines with exhaust gas NO <sub>x</sub> control devices, the owner or operator shall either install, operate, and maintain continuous emissions monitoring equipment for NO <sub>x</sub> and oxygen, as identified in Rule 1080 (Stack Monitoring), or install and maintain APCO-approved alternate monitoring	stationary gas turbine subject to the provisions of this subpart and using water injection to control NO <sub>x</sub> emissions shall install or operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. 50.334(b) Install, certify, maintain, operate, and quality-assure a continuous emissions monitoring system for NOx and O <sub>2</sub> . 60.334(h)(3) The sulfur content of each	The turbines are not equipped with water injection system; therefore, the water injection system monitoring requirements. And the owner has installed and maintain an APCO-approved alternate monitoring  The sulfur content of each fuel source shall be documented in a valid purchase contract, a supplier certification, a tariff sheet, a transportation contract, have the sulfur content tested if not supplied by a certified supplier.

Type of Requirement	District Rule 4703	Subpart GG, § 60.332, 60.333 and 60.334	Proposed Requirement
Reporting	6.2.6 The owner or operator shall maintain a stationary gas turbine system operating log that includes	submit reports of excess emissions and monitor downtime as required under §60.7(c), periods of excess emissions that shall be reported are defined as follows: 60.334(J)(1)(iii) - An hour of excess emissions shall be any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either	analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels.
Testing	Annual Testing for nitrogen oxides (NOx) concentrations using EPA Method 20 or 7E and oxygen (O <sub>2</sub> ) using Method 3, 3A, or 20.	EPA method 20 or 7E and EPA method	Annual Testing for nitrogen oxides (NOx) concentrations using EPA Method 20 or 7E and oxygen (O₂) using Method 3, 3A, or 20.

The District Rule 4703 requirement to limit NOx concentration to 9 ppmv @ 15% O2 is clearly more stringent than the Subpart GG emissions limit of 75 ppmv as discussed below. Condition 6 & 78 on draft PTOs (S-1543-5-12 & '-6-12) assures compliance with this requirement.

The  $SO_x$  emissions are limited to be below 150 ppmv which is lower than 8000 ppmv allowed by NSPS Subpart GG. Conditions 19 and 20 on draft PTOs (S-1543-5-12 and '-6-12) assure compliance with this requirement.

# R. 40 CFR Part 63, Subpart HH, <u>National Emission Standards for</u> <u>Hazardous Air Pollutants From Oil and Natural Gas Production</u> <u>Facilities</u>

These requirements provide national emission standards for hazardous air pollutants from oil and natural gas production facilities. This facility is currently subject to this rule, and continued applicability is assumed.

### a. S-1543-4-21: Gas Plant

Section 63.762 requires that emissions be minimized to the extent possible during startups, shutdowns, and malfunctions. It also requires that control equipment not be shutdown unless it is malfunctioning or needs to be

shutdown to avoid damage due to startups, shutdowns, or malfunctions. Conditions 93 and 94 of permit '-4-21 ensure compliance.

Section 63.762 provides exemption from preparing a startup, shutdown, and malfunction plan if benzene emissions are less than 0.9 megagrams/year (equivalent to 1,980 lb/yr). Condition 95 of permit '-4-21 ensures compliance.

Section 63.764(e) exempts units with benzene emissions less than 0.9 megagrams/year from the requirements of sections 63.764(c)(1), (c)(3), and (d). Condition 95 of permit '-4-21 ensures compliance.

Section 63.764(c)(2) requires control, monitoring, record keeping, and reporting in accordance with subsequent sections for storage vessels. This will be addressed below.

Section 63.764(f) requires a Title V permit, which has been satisfied with this permit.

Section 63.765 only applies to glycol dehydration units with actual average benzene emissions equal to or greater than 0.9 megagrams/year. This section is not applicable. Compliance is assured by condition 109 of permit '-1-12.

Section 63.766 requires storage vessels with potential for flash emissions to be equipped with covers, in accordance with 40 CFR 63.771, and to operate with no detectable emissions. Condition 96 of permit '-4-21 ensures compliance.

Section 63.769 provides equipment leak standards and exempts equipment already subject to 40 CFR 60 subpart KKK. Since this facility is already subject to subpart KKK, this section is not applicable.

Section 63.771 provides control equipment requirements. This section applies to each cover, closed-vent system, and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Condition 97 of permit '-4-21 ensures compliance.

Section 63.772 provides test methods, compliance procedures, and compliance demonstrations requirements. Condition 98 of permit '-4-21 ensures compliance.

Section 63.773 provides inspection and monitoring requirements for control devices required in section 63.765 and 63.766. Since this facility is exempt

form 63.765, only 63.766 applies. Condition 99 of permit '-4-21 ensures compliance.

Section 63.774 provides record keeping requirements. Conditions 100 and 101 of permit '-4-21 ensure compliance.

Section 63.776 provides reporting requirements. Condition 102 of permit '-4-21 ensures compliance.

# S. 40 CFR Part 63, Subpart ZZZZ - <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal</u> Combustion Engines

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§6585(b) states, "A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site."

§6585(c) states, "An area source of HAP emissions is a source that is not a major source."

The facility is not a major source as defined in §6585(b). Therefore, this facility is an area source of HAP emissions.

§6590(a) states, "An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand."

§6590(a)(1) defines the criteria for an existing stationary RICE as follows:

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

Based on the permitting modification records at the District, the engines at this facility have not commenced construction or reconstruction on or after June 12, 2006. Therefore, the engines at this facility meet the definition of an existing stationary RICE as defined in §6590(a)(1)(iii).

§6590(b)(3) states that the following engines do not have to meet the requirements of this subpart and of subpart A of this part:

- stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source,
- existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source, an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE,
- existing spark ignition 4 stroke lean burn (4SLB) stationary RICE,
- existing compression ignition (CI) stationary RICE,
- existing emergency stationary RICE,
- existing limited use stationary RICE, or
- existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis

The engines under permits '-25, '-26 and '-27 are existing spark ignition 4-stroke rich burn RICE located at an area source. Therefore, the engines do not have to meet the requirements of this subpart and of subpart A of this part. No further discussion is required.

### T. 40 CFR Part 64, Compliance Assurance Monitoring

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
   the unit must have a pre-control potential to emit of greater than the major source thresholds.
- a. Gas-Fired Turbines: S-1543-5-11 and '-6-16

Permit unit S-1543-5-11 is an uncontrolled emissions unit. Therefore the requirements of 40 CFR Part 64 are not applicable to this unit.

AP-42, Section 3.1 lists the control efficiency for SCR as 90% for NOx. In condition 7 of the requirements for permit units S-1543-6-16 the controlled emissions are limited to 0.45 lb NO<sub>x</sub> per hour. The <u>uncontrolled NO<sub>x</sub> emissions from each turbine is calculated to be 19.7 tons of NOx per year [(0.45 lb-NOx/hour + 0.1) x 8,760 hour/year)], are less than the Major source threshold of 25 tons-NOx per year (50,000 lb). Therefore, the permit unit is not subject to 40 CFR Part 64, <u>Compliance Assurance Monitoring</u> (CAM) for NOx.</u>

b. Gas-Fired IC Engines: S-1543-25-5, '-26-4, and '-27-4

Based on the pre-controlled annual emissions (shown below), the major source threshold for NOx (25 tons) is exceeded for permits S-353-1, and -2. Therefore the requirements of CAM are triggered.

Title V Application – Potential Emissions Report							
Permit #	Emissions Unit	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)			
S-1543-25	800 HP IC Engine	57.8	0.8	95.2			
S-1543-26	800 HP IC Engine	57.8	0.8	95.2			
S-1543-27	800 HP IC Engine	57.8	0.8	95.2			

Section 64.3(a)(1) requires the owner or operator to design a monitoring system to obtain data on one or more indicators of the emissions control performance. Condition 24 of permit S-1543-25-5, condition 25 of permit '-26-4, and condition 23 of permit '-27-4 ensure compliance.

Section 64.3(a)(2) requires the owner or operator to establish an appropriate range(s) or designated condition(s) for the selected indicator(s) such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.. Condition 25 of permit S-1543-25-5, condition 26 of permit '-26-4, and condition 24 of permit '-27-4 ensure compliance.

Section 64.7 lists the maintenance requirements, and required response to excursions or exceedances. Conditions 26 and 27 of permit S-1543-25-5, conditions 27 and 28 of permit '-26-4, and conditions 25 and 26 of permit '-27-4 ensure compliance.

Section 64.8 allows, based on the results of a determination made under §64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a Quality Improvement Plan. Condition 29 of permit S-1543-25-5, condition 30 of permit '-26-4, and condition 28 of permit '-27-4 ensure compliance.

Section 64.9 lists the recordkeeping and reporting requirement. Conditions 28 and 30 of permit S-1543-25-5, conditions 29 and 31 of permit '-26-4, and conditions 27 and 29 of permits '-27-4 ensure compliance.

## U. 40 CFR Part 82, Subpart B, <u>Servicing of Motor Vehicle Air</u> <u>Conditioners</u>

There are applicable requirements from Title VI of the CAA (Stratospheric Ozone) that apply to all sources in general. These requirements pertain to air conditioners, chillers and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners (MVAC). These requirements are addressed in condition 28 of permit '-0-3.

### V. 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction

There are applicable requirements from Title VI of the CAA (Stratospheric Ozone) that apply to all sources in general. These requirements pertain to air conditioners, chillers and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners (MVAC). These requirements are addressed in condition 27 of permit '-0-3.

### IX. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### A. Requirements Addressed by Model General Permit Templates

The applicant does not propose to use any model general permit templates.

### B. Requirements not Addressed by Model General Permit Templates

The applicant is not proposing any new permit shields.

### C. Obsolete Permit Shields From Existing Permit Requirements

### a. S-1543-0-3: Facility wide

The following rules have been updated and therefore have removed from condition 81 of the facility wide permit as follows:

Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (12/17/19); 8021 (8/19/04); 8031 (8/19/04); 8041 (8/19/04); 8051 (8/19/04); 8061 (8/19/01); and 8071 (9/16/04). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y

### b. S-1543-4-21: Gas Plant

District Rule 4403 has been replaced. Therefore, the permit shield is no longer valid and has been removed from this permit.

### c. S-1543-8-7: Gasoline Storage and Loading

District Rule 4624 has been updated. Therefore, the permit shield is no longer valid and has been removed from this permit.

### X. PERMIT CONDITIONS

See Attachment A - Final Renewed Title V Operating Permit.

#### XI. **ATTACHMENTS**

- Final Renewed Title V Operating Permit Previous Title V Operating Permit Detailed Facility List A.
- B.
- C.

# ATTACHMENT A

Final Renewed Title V Operating Permit

### San Joaquin Valley Air Pollution Control District

**FACILITY:** S-1543-0-3

### **FACILITY-WIDE REQUIREMENTS**

- 1. [98] No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- {2287} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/19/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- {2289} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
- {2290} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- {2291} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include, where applicable: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 10. {2293} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9/4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permitto Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: AERA ENERGY LLC

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- 11. {2294} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 12. {2295} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 13. {2296} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 14. {2297} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 15. {2298} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 16. {2299} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 17. {2300} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 18. {2301} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 19. {2302} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 20. {2303} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 21. {2304} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 22. {2305} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2:4] Federally Enforceable Through Title V Permit

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- 23. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (2/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 24. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 25. All VOC-containing materials for architectural coatings subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 26. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 27. {2310} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 28. {2311} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 29. {2312} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
- 30. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 31. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 32. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 33. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 34. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/04) or Rule 8011 (8/19/04). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit

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- 36. {2319} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
- 37. {2320} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 38. {2321} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 39. {2322} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 40. A leak is defined as 1) a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21, or 2) liquids dripping so that there is any visible leakage from the seal, including spraying, misting, clouding, and ice formation. [40 CFR 60.481 and 60.482-2(b)(1)] Federally Enforceable Through Title V Permit
- 41. The instrument used for leak detection shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) zero air (less than 10 ppm of hydrocarbon in air) and B) mixture of methane and air at a concentration of about, but less than 10,000 ppm methane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 42. Each piece of equipment or component in VOC service or in wet gas service (as defined in 40 CFR 60 Subpart KKK) shall be tested for compliance with leak emission limits. [40 CFR 60.632(f)] Federally Enforceable Through Title V Permit
- 43. Leak detection shall be performed in accordance with EPA Method 21. [District Rule NSR] Federally Enforceable Through Title V Permit
- 44. Each hatch shall be closed at all times except during sampling or attended maintenance operations. [District Rule NSR] Federally Enforceable Through Title V Permit
- 45. All components, excluding flanges and threaded connections and components identified in the operator's management plan that are located in inaccessible locations or in areas unsafe for personnel, handling VOCs shall be inspected at least quarterly to detect any leaks. If less than two (2) percent of any component type subject to the prohibitions of this permit, except for pressure relief valves, pumps, and compressors, are found to leak during each of five (5) consecutive quarterly inspections, the inspection frequency for that component type may be changed from quarterly to annual. If any annual inspection shows that two (2) percent or more of all of a specific component type subject to the prohibitions of this permit are leaking, then quarterly inspections of that component type shall be resumed. All flanges and threaded connections handling VOCs shall be inspected at least annually to detect any leaks. [40 CFR 60.483-1(b)(1), 60.483-2(b)(3), and (d), and 60.483-2(b)(4)] Federally Enforceable Through Title V Permit
- 46. The operator shall notify the APCO if they have elected to comply with the allowable percentage of leaking valves provisions of this permit 90 days before implementing this alternative. [40 CFR 60.483-1(b)(1) and (d), and 60.487(d)] Federally Enforceable Through Title V Permit

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- 47. A performance test shall be conducted initially upon designation for allowable percentage of leaking valves, annually, and at other times requested by the APCO. The performance test shall be conducted as follows: 1) all valves in gas/vapor and light liquid service shall be monitored within 1 week using EPA Method 21 and 2) the leak percentage shall be determined by dividing the number of leaking valves detected and valves for which repair has been delayed by the number of valves in gas/vapor and light liquid service in this permit unit, and 3) a record must be kept of the percent of valves found leaking during each leak detection period. [40 CFR 60.483-1(b)(2) and (c) and 60.483-2(b)(5) and (6)] Federally Enforceable Through Title V Permit
- 48. When any component leak is detected or identified by a Notice to Repair, it shall be repaired to a leak-free condition and reinspected no later that 15 calendar days after detection. A first attempt at repair shall be made no later than 5 calendar days after leak detection. [40 CFR 60.482-2(c)(1) and (c)(2), 60.482-3(g), 60.6 33(b)(3), 60.482-7(d), and 60.482-8(c)] Federally Enforceable Through Title V Permit
- 49. If the leak repair is technologically infeasible without a process unit shutdown and the leaking component is an essential part of a critical process identified in the operator management plan (OMP), delay of repair is allowed. However the operator shall minimize the leak within 15 calendar days. If the valve leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. If the pump leak which has been minimized still exceeds the limit in this permit and the repair requires the use of a dual mechanical seal system that includes a barrier fluid system, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than six months from the date of the original leak detection. Delay of repair is allowed for equipment which is isolated from the process and which does not remain in VOC service. [40 CFR 60.482-2(c)(1) and 60.482-9(a) and (b)] Federally Enforceable Through Title V Permit
- 50. Equipment that is in vacuum service is exempt from the control and monitoring requirements and work practice standards of this permit, provided it is identified as such in the equipment log required by this permit. [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
- 51. Each pump in light liquid service shall be monitored monthly for leak detection in accordance with EPA Method 21. Each such pump shall be monitored weekly by visual inspection for indication of liquids dripping from the pump seal. [40 CFR 60.482-2(a)(1) and 60.482-2(b)(2)] Federally Enforceable Through Title V Permit
- 52. Each pump in light liquid service, equipped with a dual mechanical seal system that includes a barrier fluid system, is exempt from the other leak detection monitoring requirements for this permit unit, provided requirements pursuant to 40 CFR 60.482-2(d) are met. The barrier fluid system of such exempt equipment shall be equipped with a sensor system to detect seal system failure, barrier fluid system failure, or both. Each such pump shall be checked weekly for liquid dripping from the seals. Each sensor shall be checked daily or equipped with an audible alarm. Such exempted equipment shall be documented in the OMP. [District Rule 2520, 9.4.2 and 40 CFR 60.482-2(d)] Federally Enforceable Through Title V Permit
- 53. Each pressure relief device in gas/vapor service, except those vented to flares, shall be monitored quarterly and within 1 day after each pressure release to the atmosphere to detect leaks of 10,000 ppm or greater. [40 CFR 60.633(b)(1) and (2) Federally Enforceable Through Title V Permit
- 54. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, so that the open end is sealed at all times, except during operations requiring process fluid flow through the valve or line. [40 CFR 60.482-6(a)] Federally Enforceable Through Title V Permit
- 55. Each open-ended valve or line equipped with a second valve shall be operated so that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
- 56. When a double block-and-bleed system is being used, the bleed valve or line may remain open only during operations that require venting the line between the block valves. [40 CFR 60.482-6(c)] Federally Enforceable Through Title V Permit
- 57. Each valve in gas/vapor service or light liquid service shall be monitored monthly to detect leaks using EPA Method 21. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter. If a leak is subsequently detected, monitoring shall revert to monthly. [40 CFR 60 488 7(a) (b), and (c)] Federally Enforceable Through Title V Permit

  FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC Location: S-1543-0-3 May 3 2010 BELRIDGE GAS PLANT, CA

- 58. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list and OMP as an unsafe-to-monitor valve is exempt from the monthly leak inspection requirements for this permit unit, provided: 1) the owner/operator demonstrates the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence, and 2) a written plan is adhered to that requires monitoring of the valve as frequently as practicable during safe-to-monitor times and at least annually and during shutdown. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
- 59. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list and OMP as a difficult-to-monitor (inaccessible) valve is exempt from the monthly leak inspection requirements for this permit unit, provided: 1) the owner/operator demonstrates the valve cannot be monitored with out elevating the monitoring personnel more than 15 feet above a support surface, or that it is over 6 feet away from a platform, 2) the process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or if the owner/operator designates less than 3.0% of the total number of valves as difficult-to-monitor, and 3) a written plan is adhered to that, requires monitoring of the valve at least annually and during shutdown. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
- 60. Pressure relief devices in light liquid service and flanges and other connectors shall be tested for leaks with a hydrocarbon analyzer within 5 days in accordance with EPA Method 21, if evidence of a potential leak is found by sight, sound, smell, or any other detection method. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
- 61. An owner or operator of more than one affected onshore natural gas processing facility subject to NSPS requirements for equipment leaks for VOC, may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)(1) and (2)] Federally Enforceable Through Title V Permit
- 62. When a leak is detected or identified by a Notice to Repair, a weatherproof and readily visible tag shall be attached, bearing the equipment identification number and date which the leak is detected. The tag on a valve may be removed after is has been monitored for 2 successive months and no leak has been detected. The tag of all other equipment may be removed after repair and re-inspection document compliance with the requirements of this permit unit. [40 CFR 60.486(b) and 60.635(b)(1)] Federally Enforceable Through Title V Permit
- 63. When a leak is detected, the following information shall be recorded in an inspection log: 1) instrument and operator identification numbers and the equipment identification number, 2) date the leak was detected, dates and repair method of each attempt to repair the leak, and date of successful repair 3) "above 10,000" if the maximum instrument reading after each repair attempt is equal to or greater than 10,000 ppm, 4) "repair delayed" and reason for delay and expected date of successful repair if a leak is not repaired within 15 days of detection, 5) signature of individual whose decision it was that repair could not be effected without a process shutdown, 6) dates of process unit shutdown that occur while the equipment is unrepaired. The inspection log shall be maintained for a period of five years. [40 CFR 60.486(c) and 60.635(2)(I) through (ix)] Federally Enforceable Through Title V Permit
- 64. A log for equipment subject to the requirements of NSPS subpart KKK shall be maintained containing the following information: 1) A list of identification numbers. 2) A list of identification numbers for equipment that are designated for no detectable emissions. The designation of equipment shall be signed by the owner or operator. 3) A list of equipment identification numbers for pressure relief devices. 4) The dates of each leak test. 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
- 65. A log shall be maintained containing the following information for valves in gas/vapor service and light liquid service:
  1) a list of identification numbers for valves designated "unsafe-to-monitor" and for valves designated "difficult-to monitor", 2) an explanation for each valve stating why it is so designated, and 3) the schedule for monitoring each such valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
- 66. A log shall be maintained containing the following information for pumps equipped with a barrier fluid seal system which includes a seal failure sensor, for which a system failure criteria is required to be established, pursuant to the requirements for this permit unit: 1) the design criterion required by this permit and an explanation and 2) any changes to this criterion and reasons for the changes. [40 CFR 60/486/h)] Federally Enforceable Through Title V Permit

FACILITY-WIDE RECURRENTS CONTINUE ON NEXT PAGE
These terms and doublings are part of the Facility-wide Permit to Operate.

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- 67. Information and data used to demonstrate that a reciprocating compressor is in wet gas service shall be recorded in a log. [40 CFR 60.635(c)] Federally Enforceable Through Title V Permit
- 68. An initial semiannual report containing fugitive emissions monitoring results, pursuant to 40 CFR 60.487(b) and 60.636(b), shall be submitted to the APCO beginning 6 months after the initial startup date. [40 CFR 60.487(b) and 60.636(b)] Federally Enforceable Through Title V Permit
- 69. Semiannual reports shall be submitted to the APCO containing the following information: 1) process unit identification, 2) for each month during the reporting period, number of valves, pumps, compressors, and pressure relief devices for which leaks were detected; number of valves, pumps, compressors, and pressure relief devices for which leaks were not repaired within 15 days and a first attempt not made within 5 days of leak detection; the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible 3) dates of process unit shutdowns which occurred within the reporting period, and 4) revisions to items reported in the initial or subsequent semiannual report. [40 CFR 60.487(a), (c) and 60.636(c)] Federally Enforceable Through Title V Permit
- 70. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
- 71. If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall conduct an initial inspection according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(1) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 72. If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall conduct an initial inspection and annual inspections according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(2) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 73. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements as specified in this permit unit. [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
- 74. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. However the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
- 75. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements as specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the inspection requirements; and 2) the owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
- 76. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements as specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2) the process unit within which the closed vent system is located becomes an affected facility through modification or reconstruction, as defined in 40 CFR 60.14 and 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3) the owner or operator has a written plan that requires inspection of the equipment at least every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

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- 77. A log shall be maintained containing the following information: 1) identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) for each inspection conducted in accordance with EPA Method 21 during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 4) for each visual inspection conducted for visible, audible, or olfactory indications of leaks during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 78. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
- 79. Each pressure relief valve without rupture disc shall be set at adequately high value (a minimum of 110% of or 25 psig above the highest normal operating pressure, whichever is lower) to contain vapors inside vessel in normal operation. [District Rule 2080] Federally Enforceable Through Title V Permit
- 80. On December 31, 2004, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 81. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (12/17/09); 8021 (8/19/04); 8031 (8/19/04); 8041 (8/19/04); 8051 (8/19/04); 8061 (8/19/04); and 8071 (9/16/04). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1543-4-21

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

GAS PROCESSING PLANT WITH INLET GAS SCRUBBERS, INLET GAS FILTER SEPARATOR(S), SULFUR REMOVAL VESSEL EXHAUST GAS TREATMENT SYSTEM, SULFUR REMOVAL PROCESS PLANT WITH 1.9 MMBTU/HR THERMAL OXIDIZER, FRACTIONATION SECTION, ETHYLENE GLYCOL INJECTION, PROPANE REFRIGERATION, HEAT TRANSFER OIL CIRCULATION SYSTEM, FUEL GAS SYSTEM, AND METHANOL INJECTION

### PERMIT UNIT REQUIREMENTS

- 1. Operation shall include sulfur removal vessels employing fixed-bed granular iron oxide (or equivalent) sweetening process. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Operation shall include sulfur removal process plant employing chelated iron redox (or equivalent) sweetening process. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Operation shall be equipped with H2S sampling port at the sulfur removal vessel exhaust and the sulfur removal process plant exhaust. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Operation may include H2S scavenger chemical storage and injection equipment listed on S-1543-41-0 to be utilized on an as-needed basis, for supplemental removal of H2S from produced gas, to maintain gas sulfur content limit.

  [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Active chemical concentrations in the Sulfurox regeneration solution shall be maintained by continuous chemical injection at appropriate chemical feed rates to ensure that H2S emissions do not increase as a result of regeneration solution degradation or exhaustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. Gas processing plant equipment may also include outlet gas sulfur removal vessels and associated piping. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Off-gas sulfur concentration from the sulfur removal plant regenerator into the thermal oxidizer shall not exceed 75 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Hydrogen sulfide (H2S) concentration at discharge of sulfur removal vessels and/or sulfur removal plant shall not exceed 14 ppmv as measured by Draeger tubes. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Total stationary source fugitive component VOC emissions shall not exceed 320.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Emissions of VOCs in regenerator vent gas shall not exceed 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Thermal oxidizer shall be used when regenerator vent gas VOC emissions rate exceeds 1.9 lb/day as calculated from measurements of VOC concentration in regenerator vent gas and regenerator vent gas flow rate. Thermal oxidizer shall remain in use until VOC emissions rate is less than 1.9 lb/day for 8 consecutive weeks. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. When thermal oxidizer is not in use, fuel line shall be disconnected (or locked out) and regeneration vent emissions shall be routed to bypass stack. [District Rule 1070] Federally Enforceable Through Title V Permit

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- 13. Emissions of reduced sulfur compounds (as H2S) in regeneration vessel vent gas shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Flow rate of regeneration vent vessel vent gas shall be recorded each time vent gas is sampled for VOC or H2S, with the recorded flow rates used to perform mass balance emission calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. Water-cooled heat exchangers shall be maintained and operated in a manner minimizing emission of VOC's in cooling tower. [District NSR Rule] Federally Enforceable Through Title V Permit
- 16. All pumps in VOC service installed after June 25, 2001 (excluding routine replacements of pumps installed prior to June 25, 2001) shall be subject to the BACT leak action level as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. Pump seals in VOC service which are vented to a closed vent system (i.e. flare header) may be exempted from inspection and maintenance (1&M) requirements of 40 CFR Part 60, Subpart KKK and Rule 4409. For any l&M-exempt pump seals, permittee shall comply with record-keeping requirements of 40 CFR 60.486(d) and associated closed vent system shall comply with design and performance criteria set forth in 40 CFR 60.482-10 and Rule 4409, Section 3.4. [40 CFR 60.632(a), 60.482-2(f), 60.482-10, 60.486(d), District Rule 4409, 3.4, 4.2.1] Federally Enforceable Through Title V Permit
- 18. Only utility wastewater and process wastewater containing [less than 35 mg/L] VOC's shall be stored in Sump JC-2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. Heat transfer oil drain pit JC-3 shall be used only during breakdown, as defined in Rule 1100 (amended December 17, 1992), of heat transfer oil circulation unit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. Filters handling fluids with greater than 10% VOCs by weight shall be completely drained before cleaning, and cleaning shall be performed in a manner minimizing VOC emissions. For filters excluded from this handling requirement, VOC content of fluids shall be documented by Double GC analysis, EPA test method 8240, or EPA Method 24. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Leaks from valves, connectors, and other components (not including pump and compressor seals) subject to a BACT requirement shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible but not greater than one (1) cm from the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Leaks from pump and compressor seals subject to a BACT requirement shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible but not greater than one (1) cm from potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. Components subject to the BACT leak action level requirements shall be tagged or listed in an on-site log such that they may be readily identified as subject to BACT. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. Components subject to the BACT leak action level requirements are valves, connectors, pump seals, and compressor seals, and other components with emission factors in EPA Publication 450/3-83-007 which are subject to Rule 4409 (adopted April 20, 2005) and associated with the sulfur removal process plant, new refrigeration skid, other modifications performed to increase the production from 50 MM scf/day to 85 MM scf/day (new equipment installed after June 25, 2001). BACT leak action threshold does not apply to identical replacement of components existing prior to June 25, 2001. [District NSR Rule and Rule 4409] Federally Enforceable Through Title V Permit
- 25. Components subject to the BACT leak action level shall be cataloged, screened, and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for pump seals, and compressor seals and 100 ppmv for valves connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409 [District NSR Rule and Rule 4409] Federally Enforceable Through Title V Permit

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- 26. For components not subject to BACT leak action level, permittee shall comply with monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- 27. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
- 28. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. All other components such as diaphragms, instruments, and meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. {3321} The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting reinspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 33. {3322} For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 34. {3323} For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 35. {3324} For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 36. {3325} Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit
- 37. {3327} Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit

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- 38. {3328} Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit
- 39. {3329} An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit
- 40. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit
- 41. {3331} A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit
- 42. {3332} A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 43. {3333} When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 44. {3334} When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 45. {3335} When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 46. {3336} When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 47. {3337} When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 48. {3338} When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

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- 49. {3339} When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 50. {3340} When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 51. {3341} For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit
- 52. {3342} For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit
- 53. {3343} All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audiovisual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit
- 54. {3344} Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit
- 55. {3345} All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit
- 56. {3346} All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit
- 57. {3347} All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit
- 58. {3348} All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit
- 59. {3349} All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit
- 60. {3350} The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit

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- 61. {3351} Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit
- 62. {3352} The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit
- 63. {3353} A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit
- 64. {3354} Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit
- 65. {3355} District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit
- 66. {3356} The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit
- 67. {3357} The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit
- 68. {3358} The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit

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- 69. {3359} For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit
- 70. {3360} If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit
- 71. {3361} For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: la) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; le) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit
- 72. {3362} All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit
- 73. {3363} The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit
- 74. {3364} By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA 5-1543-4-21, Apr 29 2010, 4:38PM - BUSHT

- 75. {3365} The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit
- 76. {3366} Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit
- 77. {3367} Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3] Federally Enforceable Through Title V Permit
- 78. {3368} All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4] Federally Enforceable Through Title V Permit
- 79. {3369} All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit
- 80. FOR PURPOSES OF RULE 4409 COMPLIANCE, the VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit
- 81. {3371} The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit
- 82. {3372} The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit
- 83. {3373} The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit
- 84. {3374} The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-4-21: Apr 29 2010 4:38PM -- BUSHT

- 85. {3375} Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit
- 86. Permittee shall determine concentration of VOC in regeneration vent gas, regeneration vent gas flow rate, and regeneration vent gas VOC emissions (in lb/day) weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks VOC emissions testing may be conducted on a quarterly basis. If regeneration vent gas VOC emissions exceed 1.9 lb/day as measured on a quarterly basis, weekly sampling shall resume. Gas analysis shall be performed using ASTM D-3588, EPA Method 18, or EPA Method 25A. [District Rule 2201] Federally Enforceable Through Title V Permit
- 87. Permittee shall determine concentration of sulfur in regeneration vent gas, regeneration vent gas flow rate, and regenerator vent gas sulfur emissions (in lb/day) weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. If regeneration vent gas sulfur emissions exceed 0.4 lb/day as measured on a quarterly basis, weekly sampling shall resume. Weekly gas sampling shall be performed using Draeger tubes and quarterly gas analysis using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
- 88. Sulferox regeneration vent stack shall be equipped with a valved or capped sampling extraction port or tubing accessible for District inspection upon request. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
- 89. Permittee shall maintain records of weekly and quarterly measurements of concentration of sulfur and VOCs in regeneration vent gas, regeneration vent gas flow rate, and regeneration vent gas sulfur and VOC emissions. Such records will be made readily available for District inspection upon request for a period of five years. [District Rule 2201 and Rule 1070, 4.0] Federally Enforceable Through Title V Permit
- 90. Records of the sources and VOC content (mg/L) of utility wastewater and process wastewater in Sump JC-2 shall be kept and made available for District inspection upon request. [VOC content shall be determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E 260-85, may be excluded from the total concentration.] [District Rule 1070] Federally Enforceable Through Title V Permit
- 91. Permittee shall maintain for a period of five years, accurate records of fugitive inspection component counts, leak screening values in excess of 10,000 ppmv, leak screening values less than 10,000 ppmv, and shall, as approved by the District, calculate fugitive emissions using February 1999 CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
- 92. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
- 93. Annual average benzene emissions shall not exceed 1,980 pounds per year. [40 CFR 63.764(e)(ii), 40 CFR 63.765(a), and 40 CFR 63.762(e)] Federally Enforceable Through Title V Permit
- 94. The owner/operator shall not shut down equipment required for compliance with 40 CFR 63 subpart HH if the shutdown would contravene requirements based on subpart HH; unless: 1) the equipment is malfunctioning; or 2) the equipment must be shut down to avoid damage due to a startup, shutdown or malfunction of associated equipment. [40 CFR 63.762(b)] Federally Enforceable Through Title V Permit
- 95. During startups, shutdowns, and malfunctions when the requirements of 40 CFR 63 subpart HH do not apply pursuant to provision of this permit, the owner/operator shall implement measures to prevent or minimize emissions to the maximum extent practical as described in 40 CFR 63.762 (c). [40 C FR 63.762(c)] Federally Enforceable Through Title V Permit
- 96. Storage vessels with potential for flash emissions shall comply with 40 CFR 63.766. [40 CFR 63.766] Federally Enforceable Through Title V Permit

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- 97. Each cover, closed-vent system, and control device installed and operated to control air emissions as required by the provisions of 40 CFR 63 subpart HH shall comply with section 40 CFR 63.771. [40 CFR 63.771] Federally Enforceable Through Title V Permit
- 98. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). [40 CFR 63.772(b)(2)] Federally Enforceable Through Title V Permit
- 99. Storage vessels with potential for flash emissions shall comply with the inspection and monitoring requirements of 40 CFR 63.773. [40 CFR 63.773] Federally Enforceable Through Title V Permit
- 100. The owner/operator shall maintain the records of actual average benzene emissions (in terms of benzene emission per year) as required by 40 CFR 63.772(b)(2). [40 CFR 63.774(d)(1)(ii)] Federally Enforceable Through Title V Permit
- 101. The owner/operator shall maintain all records required by 40 CFR 63.774. Records shall be maintained for a period of 5 years following the date of each occurrence, measurement, maintenance corrective action, report or period. All applicable records shall be maintained in hard copy or computer readable form in a manner such that they can be readily accessed. The most recent 12 months of records shall be maintained on site or shall be accessible from a central location by computer or other means that provides for access within 2 hours. The remaining 4 years of records may be retained offsite. [40 CFR 63.774] Federally Enforceable Through Title V Permit
- 102. The owner/operator shall notify and provide reports in accordance with 40 CFR 63.775. [40 CFR 63.775] Federally Enforceable Through Title V Permit
- 103. Compliance with Title V permit conditions for this unit shall be deemed compliance with applicable requirements of 40 CFR 60, Subpart KKK. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-4-21 Apr 29 2010 4:38PM – BUSHT

**PERMIT UNIT:** S-1543-5-12

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK TM SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION A

#### PERMIT UNIT REQUIREMENTS

- 1. Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
- Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the
  total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4.
   [District NSR Rule] Federally Enforceable Through Title V Permit
- "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
- 4. Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 1.04 lb/hr, SOx (as SO2): 0.40 lb/hr, PM10: 1.79 lb/hr, CO: 250 ppmv @ 15% O2 and 11.06 lb/hr, or VOC: 0.23 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 7. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 0.45 lb/hr, SOx (as SO2): 0.38 lb/hr, PM10: 1.75 lb/hr, CO: 250 ppmv @ 15% O2 and 7.77 lb/hr, or VOC: 0.20 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 8. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 4102]
- 9. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H2S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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- 11. Compliance with NOx, CO, and NH3 emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
- 12. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
- 13. The following methods shall be used for testing required by this permit: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or 10B or ARB Method 100, Stack gas Oxygen EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
- 14. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
- 15. If the NOx, CO or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]
- 16. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703]
- 17. Ammonia emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 15% O2. [District Rule 4703]
- 18. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703]
- 19. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b); District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit

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Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$1543-5-12 - Apr 29 2010 2 57PM - BUSH1

- 20. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 21. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
- 22. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H2S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
- 23. If this unit is fired on supplier-certified natural gas, then copies of fuel certifications (or specifications) and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 24. During a "shakedown" period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emissions shall not exceed 50 ppmvd NOx @ 15% O2. The shakedown period shall be concluded prior to the applicable compliance deadline identified in Aera's Rule 4703 compliance plan. Permittee shall maintain a record of the date of initial operation for at least 5 years. [District Rule 4703]

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-5-12: Apr 29 2010 2:57PM -- BUSHT

**PERMIT UNIT:** S-1543-6-12

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

13.6 MMBTU/HR GAS FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9

MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR - OPERATION B

#### PERMIT UNIT REQUIREMENTS

- 1. Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
- 2. Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Fuel gas sulfur content shall not exceed 75 ppm by volume calculated as sulfur. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 4. "Startup" and "shutdown" of gas turbine engine, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
- 5. Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: PM10: 1.83 lb/hr, SOx (as SO2): 0.38 lb/hr, NOx (as NO2): 50 ppmv @ 15% O2 and 4.44 lb/hr, VOC: 0.31 lb/hr, or CO: 250 ppmv @ 15% O2 and 11.14 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 8. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: PM10: 1.75 lb/hr, SOx (as SO2): 0.38 lb/hr, NOx (as NO2): 50 ppmv @ 15% O2 and 3.61 lb/hr, VOC: 0.20 lb/hr, or CO: 250 ppmv @ 15% O2 and 7.77 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 9. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H2S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 11. Compliance with NOx and CO emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENT SCONTINUE ON NEXT PAGE
These terms and conditions his part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-6-12: Apr 29: 2010: 2:57PM -- BUSHT

- 12. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
- 13. The following methods shall be used for testing required by this permit: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or 10B or ARB Method 100, Stack gas Oxygen EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
- 14. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b); District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 15. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 16. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
- 17. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H2S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
- 18. If this unit is fired on supplier-certified natural gas, then copies of all fuel certifications and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-6-12 - Arr 29-2010 2-57PM -- RUSHT

**PERMIT UNIT:** S-1543-7-11

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

2,500 MMBTU/HR AIR-ASSISTED FLARE WITH VAPOR KNOCKOUT TANK MS-701A AND B, PILOT GAS SCRUBBER

MS-705, AND VENT HEADER DISCHARGING TO FLARE

#### **PERMIT UNIT REQUIREMENTS**

1. Flare system shall also be equipped with relief headers discharging into KO tanks and purge gas supply piping from scrubber MS-103 to relief headers. [District NSR Rule] Federally Enforceable Through Title V Permit

- Condensate collected in KO tanks and scrubber shall be piped to closed drain blowdown vessel MS-710. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Except during breakdown and emergency events, sulfur content of flare pilot fuel gas and flared gas shall not exceed 75 ppm by volume calculated as sulfur. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Operation of the flare for other than as allowed by the total gas consumption rate limit, shall be limited to emergency use and breakdowns as defined in District Rule 1100 (amended December 17, 1992). [District NSR Rule and Rule 1100, 3.1 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- 6. Operation of flare for other than maintenance and testing, and as allowed by the total gas consumption limit shall be limited to unforeseen electrical power outages, breakdowns as defined in District Rule 1100 (amended December 17, 1992), or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) does not exceed 24 hours duration; 2) is not due to neglect or disregard of air pollution laws or rules; 3) is not intentional or the result of negligence; 4) is not due to improper maintenance; 5) does not constitute a nuisance; and 6) is not a recurrent breakdown of the same equipment. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. The owner or operator shall notify the District of any emergency use of the flare as soon as reasonably possible, but no later than one hour after the total gas consumption limit is exceeded unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. [District Rule 1070, 3.0] Federally Enforceable Through Title V Permit
- 8. The permittee shall report to the District in writing within ten days following the emergency use of the flare. The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use. [District Rule 1070, 3.0] Federally Enforceable Through Title V Permit
- 9. Permittee shall maintain accurate daily records of the amounts of flared gas during emergency operation and under normal operation for a period of five years and make such records readily available for District inspection upon request. [District Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit

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Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-7-11: Apr 29: 2010 2:57PM -- BUSHT

- 10. Permittee shall maintain accurate weekly records of pilot and waste gas sulfur content and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule; Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule; Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 12. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 13. Flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rule 4311, 5.6; 40 CFR 60.18(c)(1) and 40 CFR 63.11(b)(4)] Federally Enforceable Through Title V Permit
- 14. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once a year for a period of two hours. A record containing the results of these observations shall be maintained, which includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rules 2520, 9.4.2 and 4311, 5.6 and 40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
- 15. The operator shall maintain all records of required monitoring data and support information for District inspection at any time. [District Rule 2520, 9.5.2 and Rule 4311, 5.6] Federally Enforceable Through Title V Permit
- 16. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 17. Flare shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater. [District Rule 4311, 5.6 and 40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
- 18. The net heating value of the gas being combusted in a flare shall be determined annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18 and ASTM D1946. [District Rule 4311, 5.6 and 40 CFR 60.18 (f)(3)] Federally Enforceable Through Title V Permit
- 19. Air-assisted flares shall be operated with an exit velocity less than the velocity Vmax as determined by the methods specified in 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
- 20. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [District Rule 4311, 5.6 and 40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
- 21. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. This requirement does not apply during required maintenance of the flare. [District Rule 4311, 5.6; 40 CFR 60.18 (c)(2); 40 CFR 60.18 (e); and 40 CFR 60.18 (f)(2)] Federally Enforceable Through Title V Permit
- 22. Fuel gas sulfur content shall not exceed 75 ppm by volume calculated as sulfur. [District NSR Rule; District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT,CA
\$-1543-7-11: Agr 25: 2010: 2-57PM -- BUSHT

**PERMIT UNIT:** S-1543-8-7

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON LPG AND NATURAL GAS TRUCK LOADING OPERATION INCLUDING PROPANE, NATURAL GASOLINE, AND ISOBUTANE LOADING STATIONS AND SIX 30 HP LOADING PUMPS - TWO FOR PROPANE (P-801A AND B), TWO FOR ISOBUTANE (P-803A AND B), AND TWO FOR NATURAL GAS (P-804A AND B)

#### PERMIT UNIT REQUIREMENTS

- 1. Loading rack shall include two loading stations and each loading station shall include three loading couplers and may include one loading hose for each loading coupler, one vapor return hose with return coupler, and pressurized nitrogen connector purge system. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 2. Operation shall include loadout lines, vapor return lines and components (including pumps PP-803A and B) serving butane/natural gasoline tanks, MS-803A and B, MS 804A, B, C, and D. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 3. Operation shall include loadout lines, vapor return lines and components (including pumps PP-805A and B) serving butane/natural gasoline tanks, MS-805A, B, C, and D. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 4. Operation shall include loadout lines, vapor return lines and components (including pumps PP-801A and B) serving permit exempt propane pressurized tanks. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 5. Truck loading operation shall include vapor return lines to the associated storage vessels. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 6. Truck loading operation shall include relief drain header discharging into product storage area drain tank MS-805. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. When loading, trucks shall vent only to vapor return hoses. [District NSR Rule; District Rule 4624, 5.1.2; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 8. All centrifugal pumps shall be equipped with mechanical seals with seal pressure alarms set at the seal failure pressure setting. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Fugitive volatile organic compound (VOC) emission rate shall not exceed the limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Liquid loading and vapor return couplers shall minimize leaks to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Spare loading pumps shall not be operated while main pumps are in operation. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Loading connectors shall establish a gas-tight seal with delivery vessels prior to commencing loading. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit

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Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA S-1543-8-7: Apr 29 2010 2.57PM -- BUSHT

- 13. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 4624, 6.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 14. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that VOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid loaded. [District Rule 4624, 5.1.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 15. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded; or Class 2 loading facilities equipped with a system to control at least 95% of VOC displaced. [District Rule 4624, 5.3 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 16. Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.5 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 17. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mls per average of 3 consecutive disconnects. [District Rule 4624, 5.4 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 18. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, smell and instrument methods to detect leaks. Instrument detection shall be conducted using EPA Method 21 and shall be measured at a distance of one centimeter from the potential source. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane and air at a concentration of about, but less than, 10,000 ppm methane. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 19. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of monthly drainage inspections at disconnect for each loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 20. Drainage inspections shall be completed before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 21. Each detected leak shall be repaired within 15 calendar days of detection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 22. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 23. Analysis of halogenated exempt compounds shall be by ARB Method 432. [District Rule 4624, 6.2.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 24. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-8-7; Apr 29 2010 2 57PM - BUSH1 25. All records necessary to determine compliance with the VOC emission limit for this unit shall be maintained for a period of at least 5 years and shall include component counts and recognized emission factors for fugitive emission sources. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

These terms and conditions

he Facility-wide Permit to Operate.

**PERMIT UNIT: S-1543-9-3** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804A

# EXPIRATION DAILE 95/31/2009

#### **PERMIT UNIT REQUIREMENTS**

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT,CA

**PERMIT UNIT:** S-1543-10-3

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804B

# EXPIRATION DAILE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8.
   [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are on the Fadility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA

**PERMIT UNIT:** S-1543-11-3

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804C

### EXPIRATION DAILE 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT,CA

**PERMIT UNIT: S-1543-12-3** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804D

# EXPIRATION DATE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA 8-1843-12-3: Apr 29 2010 2:57PM - BUSHT

**PERMIT UNIT:** S-1543-13-5

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

OIL-WATER SEPARATION OPERATION INCLUDING CLOSED DRAIN BLOWDOWN VESSEL MS-710, PUMP PP-710, WASTEWATER PUMP PP-806, PRODUCT STORAGE AREA DRAIN TANK MS-805, AND DRAIN PUMP PP-805

#### PERMIT UNIT REQUIREMENTS

- Oil-water separation operation shall include drain headers from Permit No. S-1543-8 to tank MS-805 and from Permit Nos. S-1543-4, S-1543-5, S-1543-6, and S-1543-7 to drain vessel MS-710. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Closed drain blowdown vessel MS-710 shall control at least 99% of all volatile organic compound (VOC) emissions from wastewater. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Slop oil recovered from drain vessel MS-710 shall be piped to light oil dehydration facility. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Fugitive volatile organic compound (VOC) emission rate shall not exceed the limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA

**PERMIT UNIT:** S-1543-18-3

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

1,500 HP ELECTRIC MOTOR DRIVEN COOPER-BESSEMER MODEL FM-4 INLET GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

1. Volatile organic compound (VOC) emissions shall not exceed 0.96 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

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Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA 5-1543-16-3: Apr 29 2010 2:57PM-- BUSHT

**PERMIT UNIT:** S-1543-25-5

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL #8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 2. Sulfur compound emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 3. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 4. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 8. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 9. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 10. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 11. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit
- 12. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District NSR Rule and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT.CA 5-1543-25-5: Apr 29 2010 2:57PM -- BUSHT

- 13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 14. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 16. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702, 6.3.1] Federally Enforceable Through Title V Permit
- 17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 19. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Methods 18, 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
- 20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 and GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-25-5: Atr 29: 2010: 2-57PM -- BUSHT

- 24. The permittee shall monitor and record the catalyst inlet and outlet temperatures on a daily basis to assure the emission control system is functioning properly. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 25. The catalyst temperature differential (Tempout Tempin) shall be not be less than 25 degrees F. The exhaust temperature (pre-catalytic converter) shall be between 750 degrees F and 1350 degrees F. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 26. If the catalyst inlet and outlet temperatures, fails to meet the approved operating range, the permittee shall adjust operating parameters to return the concentration to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the readings continue to fail the allowable emission concentration after 8 hours, the permittee shall report a deviation to the District within the following 1 hour, and conduct a certified source test within 60 days of the first excursion. In lieu of conducting a source test the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 27. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 28. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. The permittee shall maintain daily records of the catalyst inlet and outlet temperatures. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 32. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
- 33. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-25-5: Apr 29 2010 2.57PM - BUSHT

**PERMIT UNIT:** S-1543-26-4

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL #8G-825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Sulfur compound emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801] Federally Enforceable Through Title V Permit
- 4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 5. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 9. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 10. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 11. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 12. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA 5-1543-26-4: Apr 28 2010 2 57PM -- BUSHT

- 13. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.0048 g-SOx/hp-hr, 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
- 14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 15. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 17. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702, 6.3.1] Federally Enforceable Through Title V Permit
- 18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 20. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25A or 25B, ARB Method 100, or EPA Method 18 referenced as methane. [District Rules 1081 4702, 6.4] Federally Enforceable Through Title V Permit
- 21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 23. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246, or GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-26-4 Apr 29: 2010 2 57PM -- BUSHT

- 24. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. The permittee shall monitor and record the catalyst inlet and outlet temperatures on a daily basis to assure the emission control system is functioning properly. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 26. The catalyst temperature differential (Tempout Tempin) shall be not be less than 25 degrees F. The exhaust temperature (pre-catalytic converter) shall be between 750 degrees F and 1350 degrees F. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 27. If the catalyst inlet and outlet temperatures, fails to meet the approved operating range, the permittee shall adjust operating parameters to return the concentration to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the readings continue to fail the allowable emission concentration after 8 hours, the permittee shall report a deviation to the District within the following 1 hour, and conduct a certified source test within 60 days of the first excursion. In lieu of conducting a source test the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 28. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain daily records of the catalyst inlet and outlet temperatures. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 33. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
- 34. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-26-4: Apr 29 2010 2-57PM - BUSHT

**PERMIT UNIT:** S-1543-27-4

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL 8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf.
   [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 3. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 7. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 8. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 9. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 10. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit
- 11. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.0048 g-SOx/hp-hr, 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District NSR Rule and 4702, 5.1] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA 5-1543-27-4: Apr 29 2010 2:57PM - BUSHT

- 12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 13. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 15. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702, 6.3.1] Federally Enforceable Through Title V Permit
- 16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 18. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25A or 25B or 18, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
- 19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 21. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 and GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule] Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT,CA
\$-1543-274; Apr 29 2010 2-57PM -- BUSHT

- 23. The permittee shall monitor and record the catalyst inlet and outlet temperatures on a daily basis to assure the emission control system is functioning properly. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 24. The catalyst temperature differential (Tempout Tempin) shall be not be less than 25 degrees F. The exhaust temperature (pre-catalytic converter) shall be between 750 degrees F and 1350 degrees F. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 25. If the catalyst inlet and outlet temperatures, fails to meet the approved operating range, the permittee shall adjust operating parameters to return the concentration to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the readings continue to fail the allowable emission concentration after 8 hours, the permittee shall report a deviation to the District within the following 1 hour, and conduct a certified source test within 60 days of the first excursion. In lieu of conducting a source test the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 26. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 27. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 28. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall maintain daily records of the catalyst inlet and outlet temperatures. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 31. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
- 32. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT, CA
\$-1543-27-4: Apr 26 2010 2:57PM -- BUSHT

**PERMIT UNIT:** S-1543-33-9

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

3,600 MMBTU/HR KALDAIR INDAIR LIMITED USE PRODUCED GAS FLARE WITH COANDA EFFECT FLARE TIP

#### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. Flare shall be equipped with recording, volumetric flow meters that shall be used to individually monitor and record the volumes of produced gas, pilot gas and sweep gas combusted in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
- 4. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
- 5. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance and unforeseen or necessary planned power outages. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
- 6. The sulfur content of produced gas combusted in the flare shall not exceed 1,000 ppmv. Sulfur content of pilot gas and sweep gas shall not exceed 15 ppmv (as H2S). [District Rule 2201, District Rule 4801, 3.1, and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 7. Maximum amount of gas combusted shall not exceed 60,000 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Maximum amount of gas combusted shall not exceed 90,000 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx (as NO2): 0.068 lb/MMBtu; SOx (as SO2): 0.14 lb/MMBtu; PM10: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Total quantity of pilot gas and sweep gas combusted in the flare shall not exceed 15 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Permittee shall measure the sulfur content of the produced gas combusted in the flare and the H2S concentration of the pilot/sweep gas by District witnessed, or authorized, sample collection by ARB certified testing laboratory annually. [District Rules 1081, 7.2 and 2201] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA S-1543-33-9: Apr 29 2010 2 58PM -- BUSHT

- 12. The sulfur content of the produced gas flared shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H2S and Mercaptans. H2S concentration (ppmv) of the pilot/sweep gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rules 1081 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 13. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once a year for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 14. The higher heating value of the pilot gas, sweep gas, and flared gas shall be monitored at least quarterly. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. The operator shall maintain all records of required monitoring data and support information for District inspection at any time. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 17. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 18. Permittee shall maintain accurate records of the daily quantities of produced gas and pilot and sweep gas combusted in the flare. [District Rules 2201 and Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 19. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA

**PERMIT UNIT:** S-1543-34-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805A

### EXPIRATION DAILE 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-34-2 : Apr 29 2010 2:58PM -- BUSHT

**PERMIT UNIT:** S-1543-35-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805B

### EXPIRATION DATE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are pare of the Fadility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA

**PERMIT UNIT:** S-1543-36-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805C

### EXPIRATION DATE: 05/31/2009

#### **PERMIT UNIT REQUIREMENTS**

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA.ENERGY LLC Location: BELRIDGE GAS PLANT,CA 5-1543-36-2: Agr 29-2010 2:58PM -- BUSHT

**PERMIT UNIT:** S-1543-37-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805D

# EXPIRATION DATE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are pare of the Fadility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: BELRIDGE GAS PLANT,CA

**PERMIT UNIT:** S-1543-39-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803A

# EXPIRATION DAILE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA 5-1543-35-2: Apr 29 2010 2:58PM -- BUSHT

**PERMIT UNIT:** S-1543-40-2

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803B

EXPIRATION DATE: 05/31/2009

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC-Location: BELRIDGE GAS PLANT, CA S-1543-40-2: Apr 29 2010 2:58PM - BUSHT

**PERMIT UNIT:** S-1543-41-2

XPIRATION DAITE 05/31/2009

#### **EQUIPMENT DESCRIPTION:**

VARIOUS UNSPECIFIED LOCATIONS IN SOUTH BELRIDGE OIL FIELD, HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION UTILIZING UP TO 15 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS, FLEXIBLE-PIPING, AND STINGER-TYPE INJECTION FITTINGS

#### PERMIT UNIT REQUIREMENTS

- 1. Permittee shall notify the SJVUAPCD of each location at which an H2S scavenger chemical storage and injection operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Chemical storage and injection operations shall not be located within 1000 feet of a school. [District Rule 4102]
- 3. Each chemical storage tank shall have a maximum rated capacity of 500 gallons or less and up to eight injection points. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. The maximum throughput of each chemical storage tank shall not exceed 500 gallons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. True vapor pressure of materials stored in each chemical tank shall not exceed 0.25 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. VOC emissions from the H2S scavenger injection equipment shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain accurate fugitive component counts and resultant emissions calculated using Table 2-4 of U.S. EPA Publication 453/R-95-017. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Accurate records of the dates and amounts of chemical deliveries for each chemical injection site and fugitive component counts shall be retained and made available for District inspection upon request for a period of 5 years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-41-2: Apr 29 2010 2.58PLI-- BUSH1

### ATTACHMENT B

Previous Title V Operating Permit

**FACILITY:** S-1543-0-2 **EXPIRATION DATE:** 05/31/2009

### **FACILITY-WIDE REQUIREMENTS**

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- 3. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- 4. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- 5. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- 6. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
- 7. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- 8. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- 9. The operator shall maintain records of required monitoring that include, where applicable: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-0-2 Apr 26 2010 (3:05PM - BUSH)

- 11. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 12. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V **Permit**
- 13. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 14. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 15. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 16. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 17. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 18. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 22. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 23. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (11/15/01). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE 5-1543-0-2 : Apr 29 2010 3 03PM -- EUSF

- 24. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (10/31/01) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 25. All VOC-containing materials for architectural coatings subject to Rule 4601 (10/31/01) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 26. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (10/31/01). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 27. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 28. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 29. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
- 30. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 31. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 32. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 33. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 34. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 36. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- 37. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 38. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 39. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 40. A leak is defined as 1) a reading as methane in excess of 10,000 ppm above background when measured in accordance with EPA Method 21, or 2) liquids dripping so that there is any visible leakage from the seal, including spraying, misting, clouding, and ice formation. [District Rule 4403, 3.3.1 and 40 CFR 60.481 and 60.482-2(b)(1)] Federally Enforceable Through Title V Permit
- 41. The instrument used for leak detection shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) zero air (less than 10 ppm of hydrocarbon in air) and B) mixture of methane and air at a concentration of about, but less than 10,000 ppm methane. [District Rule 4403, 6.3.4 and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 42. Each piece of equipment or component in VOC service or in wet gas service (as defined in 40 CFR 60 Subpart KKK) shall be tested for compliance with leak emission limits. [40 CFR 60.632(f)] Federally Enforceable Through Title V Permit
- 43. Leak detection shall be performed in accordance with EPA Method 21. [District Rule 4403, 6.3.4] Federally Enforceable Through Title V Permit
- 44. Each hatch shall be closed at all times except during sampling or attended maintenance operations. [District Rule 4403, 5.2.1] Federally Enforceable Through Title V Permit
- 45. All components, excluding flanges and threaded connections and components identified in the operator's management plan that are located in inaccessible locations or in areas unsafe for personnel, handling VOCs shall be inspected at least quarterly to detect any leaks. If less than two (2) percent of any component type subject to the prohibitions of this permit, except for pressure relief valves, pumps, and compressors, are found to leak during each of five (5) consecutive quarterly inspections, the inspection frequency for that component type may be changed from quarterly to annual. If any annual inspection shows that two (2) percent or more of all of a specific component type subject to the prohibitions of this permit are leaking, then quarterly inspections of that component type shall be resumed. All flanges and threaded connections handling VOCs shall be inspected at least annually to detect any leaks. [District Rule 4403, 5.2.3] Federally Enforceable Through Title V Permit
- 46. The operator shall notify the APCO if they have elected to comply with the allowable percentage of leaking valves provisions of this permit 90 days before implementing this alternative. [40 CFR 60.483-1(b)(1) and (d), and 60.487(d)] Federally Enforceable Through Title V Permit
- 47. A performance test shall be conducted initially upon designation for allowable percentage of leaking valves, annually, and at other times requested by the APCO. The performance test shall be conducted as follows: 1) all valves in gas/vapor and light liquid service shall be monitored within 1 week using EPA Method 21 and 2) the leak percentage shall be determined by dividing the number of leaking valves detected and valves for which repair has been delayed by the number of valves in gas/vapor and light liquid service in this permit unit, and 3) a record must be kept of the percent of valves found leaking during each leak detection period. [40 CFR 60.483-1(b)(2) and (c) and 60.483-2(b)(5) and (6)] Federally Enforceable Through Title V Permit

- 48. The number of leaks of a component type shall not exceed one component or two (2) percent of the total number of components of that type that were inspected and that are subject to the requirements of this permit, whichever is greater. For inspections conducted by District personnel to determine compliance with this requirement, the number of components inspected shall constitute a statistically representative sample (as defined in District Rule 4403, Section 3.1.11, as amended 2/16/95) for each component type. [District Rule 4403, 5.2.10] Federally Enforceable Through Title V Permit
- 49. When any component leak is detected or identified by a Notice to Repair, it shall be repaired to a leak-free condition and reinspected no later that 15 calendar days after detection. A first attempt at repair shall be made no later than 5 calendar days after leak detection. [District Rules 2520, 9.1 and 4403, 5.3.1, 5.3.2, and 5.2.9; 40 CFR 60.482-2(c)(1) and (c)(2), 60.482-3(g), 60.6 33(b)(3), 60.482-7(d), and 60.482-8(c)] Federally Enforceable Through Title V Permit
- 50. If the leak repair is technologically infeasible without a process unit shutdown and the leaking component is an essential part of a critical process identified in the operator management plan (OMP), delay of repair is allowed. However the operator shall minimize the leak within 15 calendar days. If the valve leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. If the pump leak which has been minimized still exceeds the limit in this permit and the repair requires the use of a dual mechanical seal system that includes a barrier fluid system, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than six months from the date of the original leak detection. Delay of repair is allowed for equipment which is isolated from the process and which does not remain in VOC service. [District Rule 4403, 4.2.1, 5.3.1.1 and 40 CFR 60.482-2(c)(1) and 60.482-9(a) and (b)] Federally Enforceable Through Title V Permit
- 51. Equipment that is in vacuum service is exempt from the control and monitoring requirements and work practice standards of this permit, provided it is identified as such in the equipment log required by this permit. [District Rule 4403, 4.2.2 and 40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
- 52. Each pump in light liquid service shall be monitored monthly for leak detection in accordance with EPA Method 21. Each such pump shall be monitored weekly by visual inspection for indication of liquids dripping from the pump seal. [District Rule 4403, 5.2.5 and 40 CFR 60.482-2(a)(1) and 60.482-2(b)(2)] Federally Enforceable Through Title V Permit
- 53. Each pump in light liquid service, equipped with a dual mechanical seal system that includes a barrier fluid system, is exempt from the other leak detection monitoring requirements for this permit unit, provided requirements pursuant to 40 CFR 60.482-2(d) are met. The barrier fluid system of such exempt equipment shall be equipped with a sensor system to detect seal system failure, barrier fluid system failure, or both. Each such pump shall be checked weekly for liquid dripping from the seals. Each sensor shall be checked daily or equipped with an audible alarm. Such exempted equipment shall be documented in the OMP. [District Rule 2520, 9.4.2 and 40 CFR 60.482-2(d)] Federally Enforceable Through Title V Permit
- 54. Each pressure relief device in gas/vapor service, except those vented to flares, shall be monitored quarterly and within 1 day after each pressure release to the atmosphere to detect leaks of 10,000 ppm or greater. [District Rule 4403, 5.2.6 and 40 CFR 60.633(b)(1) and (2)] Federally Enforceable Through Title V Permit
- 55. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, so that the open end is sealed at all times, except during operations requiring process fluid flow through the valve or line. [District Rule 4403, 5.2.2 and 40 CFR 60.482-6(a)] Federally Enforceable Through Title V Permit
- 56. Each open-ended valve or line equipped with a second valve shall be operated so that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
- 57. When a double block-and-bleed system is being used, the bleed valve or line may remain open only during operations that require venting the line between the block valves. [40 CFR 60.482-6(c)] Federally Enforceable Through Title V Permit

- 58. Each valve in gas/vapor service or light liquid service shall be monitored monthly to detect leaks using EPA Method 21. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter. If a leak is subsequently detected, monitoring shall revert to monthly. [40 CFR 60.482-7(a), (b), and (c)] Federally Enforceable Through Title V Permit
- 59. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list and OMP as an unsafe-to-monitor valve is exempt from the monthly leak inspection requirements for this permit unit, provided: 1) the owner/operator demonstrates the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence, and 2) a written plan is adhered to that requires monitoring of the valve as frequently as practicable during safe-to-monitor times and at least annually and during shutdown. [District Rule 4403, 5.2.4; 40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
- 60. Any valve in gas/vapor service or light liquid service that is designated in the equipment log list and OMP as a difficult-to-monitor (inaccessible) valve is exempt from the monthly leak inspection requirements for this permit unit, provided: 1) the owner/operator demonstrates the valve cannot be monitored with out elevating the monitoring personnel more than 15 feet above a support surface, or that it is over 6 feet away from a platform, 2) the process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or if the owner/operator designates less than 3.0% of the total number of valves as difficult-to-monitor, and 3) a written plan is adhered to that, requires monitoring of the valve at least annually and during shutdown. [District Rule 4403, 3.1.7 and 5.2.4; 40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
- 61. Components that are located in inaccessible locations or in areas unsafe for personnel shall be inspected and repaired at least annually and during shutdown, and such components shall be identified in the operator management plan.

  [District Rule 4403, 5.2.4] Federally Enforceable Through Title V Permit
- 62. Pressure relief devices in light liquid service and flanges and other connectors shall be tested for leaks with a hydrocarbon analyzer within 5 days in accordance with EPA Method 21, if evidence of a potential leak is found by sight, sound, smell, or any other detection method. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
- 63. An owner or operator of more than one affected onshore natural gas processing facility subject to NSPS requirements for equipment leaks for VOC, may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)(1) and (2)] Federally Enforceable Through Title V Permit
- 64. When a leak is detected or identified by a Notice to Repair, a weatherproof and readily visible tag shall be attached, bearing the equipment identification number and date which the leak is detected. The tag on a valve may be removed after is has been monitored for 2 successive months and no leak has been detected. The tag of all other equipment may be removed after repair and re-inspection document compliance with the requirements of this permit unit. [District Rule 4403, 5.2.7 and 5.3.2; 40 CFR 60.486(b) and 60.635(b)(1)] Federally Enforceable Through Title V Permit
- 65. Any leak detected on the basis of sight, smell, or sound shall be identified by the operator affixing a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until repair and reinspection document compliance, whether or not operator inspection is otherwise required by this permit. [District Rule 4403, 5.2.8] Federally Enforceable Through Title V Permit
- 66. When a leak is detected, the following information shall be recorded in an inspection log: 1) instrument and operator identification numbers and the equipment identification number, 2) date the leak was detected, dates and repair method of each attempt to repair the leak, and date of successful repair 3) "above 10,000" if the maximum instrument reading after each repair attempt is equal to or greater than 10,000 ppm, 4) "repair delayed" and reason for delay and expected date of successful repair if a leak is not repaired within 15 days of detection, 5) signature of individual whose decision it was that repair could not be effected without a process shutdown, 6) dates of process unit shutdown that occur while the equipment is unrepaired. The inspection log shall be maintained for a period of five years. [District Rule 4403, 6.2.1 and 40 CFR 60.486(c) and 60.635(2)(I) through (ix)] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA 5-1543-0-2. Apr 26 2010 3 03PM -- BUSHT

- 67. Each operator shall maintain an inspection log containing, at a minimum, the following: name, location, type of components, and description of any unit where leaking components are found; date of leak detection, emission level (ppm) of leak, and method of detection; date and emission level of recheck after leak is repaired; total number of components inspected, and total number and percentage of leaking components found; Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 4403, 6.2.1] Federally Enforceable Through Title V Permit
- 68. A log for equipment subject to the requirements of NSPS subpart KKK shall be maintained containing the following information: 1) A list of identification numbers. 2) A list of identification numbers for equipment that are designated for no detectable emissions. The designation of equipment shall be signed by the owner or operator. 3) A list of equipment identification numbers for pressure relief devices. 4) The dates of each leak test. 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
- 69. A log shall be maintained containing the following information for valves in gas/vapor service and light liquid service:
  1) a list of identification numbers for valves designated "unsafe-to-monitor" and for valves designated "difficult-to monitor", 2) an explanation for each valve stating why it is so designated, and 3) the schedule for monitoring each such valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
- 70. A log shall be maintained containing the following information for pumps equipped with a barrier fluid seal system which includes a seal failure sensor, for which a system failure criteria is required to be established, pursuant to the requirements for this permit unit: 1) the design criterion required by this permit and an explanation and 2) any changes to this criterion and reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
- 71. Information and data used to demonstrate that a reciprocating compressor is in wet gas service shall be recorded in a log. [40 CFR 60.635(c)] Federally Enforceable Through Title V Permit
- 72. A new or modified operator management plan shall be submitted to the APCO with any application for Authority to Construct for modification to any of the items prescribed by Rule 4403 to be included in the operator management plan. [District Rule 4403, 6.1.2] Federally Enforceable Through Title V Permit
- 73. An initial semiannual report containing fugitive emissions monitoring results, pursuant to 40 CFR 60.487(b) and 60.636(b), shall be submitted to the APCO beginning 6 months after the initial startup date. [40 CFR 60.487(b) and 60.636(b)] Federally Enforceable Through Title V Permit
- 74. Semiannual reports shall be submitted to the APCO containing the following information: 1) process unit identification, 2) for each month during the reporting period, number of valves, pumps, compressors, and pressure relief devices for which leaks were detected; number of valves, pumps, compressors, and pressure relief devices for which leaks were not repaired within 15 days and a first attempt not made within 5 days of leak detection; the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible 3) dates of process unit shutdowns which occurred within the reporting period, and 4) revisions to items reported in the initial or subsequent semiannual report. [40 CFR 60.487(a), (c) and 60.636(c)] Federally Enforceable Through Title V Permit
- 75. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
- 76. If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall conduct an initial inspection according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(1) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 77. If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall conduct an initial inspection and annual inspections according to the procedures specified in EPA Method 21 using the calibration gases as specified in the requirements for this permit unit. The owner or operator shall also conduct annual visual inspections for visible, audible, or olfactory indications of leaks. [40 CFR 60.482-10(f)(2) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

- 78. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements as specified in this permit unit. [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
- 79. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. However the operator shall minimize the leak within 15 calendar days. If the leak which has been minimized still exceeds the limit in this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. [District Rule 4403, 4.2.1, 5.3.1.1 and 40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
- 80. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements as specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the inspection requirements; and 2) the owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
- 81. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements as specified in this permit unit if the owner or operator complies with the following: 1) the owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2) the process unit within which the closed vent system is located becomes an affected facility through modification or reconstruction, as defined in 40 CFR 60.14 and 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3) the owner or operator has a written plan that requires inspection of the equipment at least every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
- 82. A log shall be maintained containing the following information: 1) identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) for each inspection conducted in accordance with EPA Method 21 during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 4) for each visual inspection conducted for visible, audible, or olfactory indications of leaks during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(1) and 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
- 83. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
- 84. Each pressure relief valve without rupture disc shall be set at adequately high value (a minimum of 110% of or 25 psig above the highest normal operating pressure, whichever is lower) to contain vapors inside vessel in normal operation. [District Rule 2080] Federally Enforceable Through Title V Permit
- 85. On December 31, 2004, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit



### **AUTHORITY TO CONSTRUCT**

**PERMIT NO: S-1543-4-20** 

**ISSUANCE DATE: 04/03/2008** 

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

**MAILING ADDRESS:** 

PO BOX 11164

BAKERSFIELD, CA 93389-1164

LOCATION:

**BELRIDGE GAS PLANT** 

SECTION: 32 TOWNSHIP: 28S

RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF GAS PROCESSING PLANT WITH INLET GAS SCRUBBERS, INLET GAS FILTER SEPARATOR(S), SULFUR REMOVAL VESSEL EXHAUST GAS TREATMENT SYSTEM, SULFUR REMOVAL PROCESS PLANT WITH 1.9 MMBTU/HR THERMAL OXIDIZER, FRACTIONATION SECTION, ETHYLENE GLYCOL INJECTION, PROPANE REFRIGERATION, HEAT TRANSFER OIL CIRCULATION SYSTEM, FUEL GAS SYSTEM, AND METHANOL INJECTION: AUTHORIZE REGENERATOR SETTLER SURGE VESSELS V-110/V-210 TO VENT TO ATMOSPHERE VIA 28 FT HIGH VENT STACK RATHER THAN THE THERMAL OXIDIZER

#### CONDITIONS

- This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
- Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- Operation shall include sulfur removal vessels employing fixed-bed granular iron oxide (or equivalent) sweetening process. [District NSR Rule] Federally Enforceable Through Title V Permit
- Operation shall include sulfur removal process plant employing chelated iron redox (or equivalent) sweetening process. [District NSR Rule] Federally Enforceable Through Title V Permit
- Operation shall be equipped with H2S sampling port at the sulfur removal vessel exhaust and the sulfur removal process plant exhaust. [District NSR Rule] Federally Enforceable Through Title V Permit

#### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of Issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

- 6. Operation may include H2S scavenger chemical storage and injection equipment listed on S-1543-41-0 to be utilized on an as-needed basis, for supplemental removal of H2S from produced gas, to maintain gas sulfur content limit.
  [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Active chemical concentrations in the Sulfurox regeneration solution shall be maintained by continuous chemical injection at appropriate chemical feed rates to ensure that H2S emissions do not increase as a result of regeneration solution degradation or exhaustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Gas processing plant equipment may also include outlet gas sulfur removal vessels and associated piping. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Off-gas sulfur concentration from the sulfur removal plant regenerator into the thermal oxidizer shall not exceed 75 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
- Hydrogen sulfide (H2S) concentration at discharge of sulfur removal vessels and/or sulfur removal plant shall not
  exceed 14 ppmv as measured by Draeger tubes. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Total stationary source fugitive component VOC emissions shall not exceed 320.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Emissions of VOCs in regenerator vent gas shall not exceed 2.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Thermal oxidizer shall be used when regenerator vent gas VOC emissions rate exceeds 1.9 lb/day as calculated from measurements of VOC concentration in regenerator vent gas and regenerator vent gas flow rate. Thermal oxidizer shall remain in use until VOC emissions rate is less than 1.9 lb/day for 8 consecutive weeks. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. When thermal oxidizer is not in use, fuel line shall be disconnected (or locked out) and regeneration vent emissions shall be routed to bypass stack. [District Rule 1070] Federally Enforceable Through Title V Permit
- 15. Emissions of reduced sulfur compounds (as H2S) in regeneration vessel vent gas shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Flow rate of regeneration vent vessel vent gas shall be recorded each time vent gas is sampled for VOC or H2S, with the recorded flow rates used to perform mass balance emission calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. Water-cooled heat exchangers shall be maintained and operated in a manner minimizing emission of VOC's in cooling tower. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. All pumps in VOC service installed after June 25, 2001 (excluding routine replacements of pumps installed prior to June 25, 2001) shall be subject to the BACT leak action level as described in this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Pump seals in VOC service which are vented to a closed vent system (i.e. flare header) may be exempted from inspection and maintenance (I&M) requirements of 40 CFR Part 60, Subpart KKK and Rule 4409. For any I&M-exempt pump seals, permittee shall comply with record-keeping requirements of 40 CFR 60.486(d) and associated closed vent system shall comply with design and performance criteria set forth in 40 CFR 60.482-10 and Rule 4409, Section 3.4. [40 CFR 60.632(a), 60.482-2(f), 60.482-10, 60.486(d), District Rule 4409, 3.4, 4.2.1] Federally Enforceable Through Title V Permit
- 20. Only utility wastewater and process wastewater containing [less than 35 mg/L] VOC's shall be stored in Sump JC-2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. Heat transfer oil drain pit JC-3 shall be used only during breakdown, as defined in Rule 1100 (amended December 17, 1992), of heat transfer oil circulation unit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Filters handling fluids with greater than 10% VOCs by weight shall be completely drained before cleaning, and cleaning shall be performed in a manner minimizing VOC emissions. For filters excluded from this handling requirement, VOC content of fluids shall be documented by Double GC analysis, EPA test method 8240, or EPA Method 24. [District NSR Rule] Federally Enforceable Through Title V Permit

- 23. Leaks from valves, connectors, and other components (not including pump and compressor seals) subject to a BACT requirement shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible but not greater than one (1) cm from the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. Leaks from pump and compressor seals subject to a BACT requirement shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible but not greater than one (1) cm from potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 25. Components subject to the BACT leak action level requirements shall be tagged or listed in an on-site log such that they may be readily identified as subject to BACT. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. Components subject to the BACT leak action level requirements are valves, connectors, pump seals, and compressor seals, and other components with emission factors in EPA Publication 450/3-83-007 which are subject to Rule 4409 (adopted April 20, 2005) and associated with the sulfur removal process plant, new refrigeration skid, other modifications performed to increase the production from 50 MM scf/day to 85 MM scf/day (new equipment installed after June 25, 2001). BACT leak action threshold does not apply to identical replacement of components existing prior to June 25, 2001. [District NSR Rule and Rule 4409] Federally Enforceable Through Title V Permit
- 27. Components subject to the BACT leak action level shall be cataloged, screened, and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for pump seals, and compressor seals and 100 ppmv for valves connectors and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Rule 4409 (adopted April 20, 2005). This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the revised Operator Management Plan required by Rule 4409. [District NSR Rule and Rule 4409] Federally Enforceable Through Title V Permit
- 28. For components not subject to BACT leak action level, permittee shall comply with monitoring, inspection, maintenance, and recordkeeping, and reporting requirements of 40 CFR Part 60 Subpart KKK and Rule 4409. [40 CFR Part 60 Subpart KKK and District Rule 4409] Federally Enforceable Through Title V Permit
- 29. Component screening shall be performed in accordance with EPA reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. Flanges shall be monitored with a portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. Valves shall be monitored with a portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
- 33. All other components such as diaphragms, instruments, and meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit

- 35. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 36. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 37. For polished rod stuffing boxes (PRSBs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1] Federally Enforceable Through Title V Permit
- 38. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2] Federally Enforceable Through Title V Permit
- 39. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2] Federally Enforceable Through Title V Permit
- 40. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3] Federally Enforceable Through Title V Permit
- 41. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1] Federally Enforceable Through Title V Permit
- 42. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2] Federally Enforceable Through Title V Permit
- 43. A leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3] Federally Enforceable Through Title V Permit
- 44. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 45. When 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit

- 46. When 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 47. When 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 48. When 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 49. When compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 50. When 200 or fewer PRSBs are inspected, a leak is when more than four have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 PRSBs are inspected, a leak is when more than 2.0 % (rounded up to the nearest whole number) of the PRSBs have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 51. When 200 or fewer wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than two or more pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 wells at light crude oil or gas production facilities are inspected, a leak from a pipe is when more than 1.0 % (rounded up to the nearest whole number) of the pipes have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 52. When pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4] Federally Enforceable Through Title V Permit
- 53. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1] Federally Enforceable Through Title V Permit
- 54. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2] Federally Enforceable Through Title V Permit
- 55. All accessible operating pumps, compressors, and PRDs, in service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3] Federally Enforceable Through Title V Permit
- 56. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4] Federally Enforceable Through Title V Permit
- 57. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5] Federally Enforceable Through Title V Permit

- 58. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6] Federally Enforceable Through Title V Permit
- 59. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7] Federally Enforceable Through Title V Permit
- 60. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8] Federally Enforceable Through Title V Permit
- 61. All pipes, in service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1] Federally Enforceable Through Title V Permit
- 62. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2] Federally Enforceable Through Title V Permit
- 63. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit
- 64. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11] Federally Enforceable Through Title V Permit
- 65. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12] Federally Enforceable Through Title V Permit
- 66. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13] Federally Enforceable Through Title V Permit
- 67. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14] Federally Enforceable Through Title V Permit
- 68. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4409, 5.3.1] Federally Enforceable Through Title V Permit

- 69. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit
- 70. The operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5] Federally Enforceable Through Title V Permit
- 71. For each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5] Federally Enforceable Through Title V Permit
- 72. If a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6] Federally Enforceable Through Title V Permit
- 73. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options la through If require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; lb) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; le) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7] Federally Enforceable Through Title V Permit
- 74. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1] Federally Enforceable Through Title V Permit

- 75. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2] Federally Enforceable Through Title V Permit
- 76. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4] Federally Enforceable Through Title V Permit
- 77. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1] Federally Enforceable Through Title V Permit
- 78. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2] Federally Enforceable Through Title V Permit
- 79. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3] Federally Enforceable Through Title V Permit
- 80. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4] Federally Enforceable Through Title V Permit
- 81. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rule 4409, 6.3.1] Federally Enforceable Through Title V Permit
- 82. FOR PURPOSES OF RULE 4409 COMPLIANCE, the VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2] Federally Enforceable Through Title V Permit
- 83. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3] Federally Enforceable Through Title V Permit
- 84. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4] Federally Enforceable Through Title V Permit
- 85. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5] Federally Enforceable Through Title V Permit

- 86. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6] Federally Enforceable Through Title V Permit
- 87. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7] Federally Enforceable Through Title V Permit
- 88. Permittee shall determine concentration of VOC in regeneration vent gas, regeneration vent gas flow rate, and regeneration vent gas VOC emissions (in lb/day) weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks VOC emissions testing may be conducted on a quarterly basis. If regeneration vent gas VOC emissions exceed 1.9 lb/day as measured on a quarterly basis, weekly sampling shall resume. Gas analysis shall be performed using ASTM D-3588, EPA Method 18, or EPA Method 25A. [District Rule 2201] Federally Enforceable Through Title V Permit
- 89. Permittee shall determine concentration of sulfur in regeneration vent gas, regeneration vent gas flow rate, and regenerator vent gas sulfur emissions (in lb/day) weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. If regeneration vent gas sulfur emissions exceed 0.4 lb/day as measured on a quarterly basis, weekly sampling shall resume. Weekly gas sampling shall be performed using Draeger tubes and quarterly gas analysis using ASTM method D3246 or double GC for H2S and mercaptans. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
- 90. Sulferox regeneration vent stack shall be equipped with a valved or capped sampling extraction port or tubing accessible for District inspection upon request. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
- 91. Permittee shall maintain records of weekly and quarterly measurements of concentration of sulfur and VOCs in regeneration vent gas, regeneration vent gas flow rate, and regeneration vent gas sulfur and VOC emissions. Such records will be made readily available for District inspection upon request for a period of five years. [District Rule 2201 and Rule 1070, 4.0] Federally Enforceable Through Title V Permit
- 92. Records of the sources and VOC content (mg/L) of utility wastewater and process wastewater in Sump JC-2 shall be kept and made available for District inspection upon request. [VOC content shall be determined by EPA Test Method 413.2, or 418.1 and/or, if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E 260-85, may be excluded from the total concentration.] [District Rule 1070] Federally Enforceable Through Title V Permit
- 93. Permittee shall maintain for a period of five years, accurate records of fugitive inspection component counts, leak screening values in excess of 10,000 ppmv, leak screening values less than 10,000 ppmv, and shall, as approved by the District, calculate fugitive emissions using February 1999 CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
- 94. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
- 95. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter 182 lb, 2nd quarter 182 lb, 3rd quarter 183 lb, and fourth quarter 183 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201] Federally Enforceable Through Title V Permit
- 96. ERC Certificate Number S-2571-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit



### AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1543-5-13

**ISSUANCE DATE: 06/03/2009** 

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

PO BOX 11164

**MAILING ADDRESS:** 

**BAKERSFIELD, CA 93389-1164** 

CA

LOCATION:

SECTION: 32

**BELRIDGE GAS PLANT** 

TOWNSHIP: 28S

RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

MODIFICATION OF 13.6 MMBTU/HR GAS FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR - OPERATION A: INSTALL SELECTIVE CATALYTIC REDUCTION (SCR) FOR RULE 4703 COMPLIANCE

#### **CONDITIONS**

- The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
- Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301, [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
- Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
- Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seved Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

- 7. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 1.04 lb/hr, SOx (as SO2): 0.40 lb/hr, PM10: 1.79 lb/hr, CO: 250 ppmv @ 15% O2 and 11.06 lb/hr, or VOC: 0.23 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 8. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 0.45 lb/hr, SOx (as SO2): 0.38 lb/hr, PM10: 1.75 lb/hr, CO: 250 ppmv @ 15% O2 and 7.77 lb/hr, or VOC: 0.20 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 9. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 4102]
- 10. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H2S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 12. Compliance with NOx, CO, and NH3 emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
- 13. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
- 14. The following methods shall be used for testing required by this permit: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or 10B or ARB Method 100, Stack gas Oxygen EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
- 15. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
- 16. If the NOx, CO or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]

- 17. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703]
- 18. Ammonia emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 15% O2. [District Rule 4703]
- 19. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703]
- 20. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b); District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 21. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 22. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
- 23. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H2S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
- 24. If this unit is fired on supplier-certified natural gas, then copies of fuel certifications (or specifications) and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 25. During a "shakedown" period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emissions shall not exceed 50 ppmvd NOx @ 15% O2. The shakedown period shall be concluded prior to the applicable compliance deadline identified in Aera's Rule 4703 compliance plan. Permittee shall maintain a record of the date of initial operation for at least 5 years. [District Rule 4703]

**PERMIT UNIT:** S-1543-6-15

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK TM SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION B

### PERMIT UNIT REQUIREMENTS

- Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
- Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the
  total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4.
  [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
- 4. Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 1.04 lb/hr, SOx (as SO2): 0.40 lb/hr, PM10: 1.79 lb/hr, CO: 250 ppmv @ 15% O2 and 11.06 lb/hr, or VOC: 0.23 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 7. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NOx (as NO2): 9 ppmv @ 15% O2 and 0.45 lb/hr, SOx (as SO2): 0.38 lb/hr, PM10: 1.75 lb/hr, CO: 250 ppmv @ 15% O2 and 7.77 lb/hr, or VOC: 0.20 lb/hr. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)] Federally Enforceable Through Title V Permit
- 8. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O2. [District Rule 4102]
- 9. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H2S)and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-6-15. Apr 29 2010 3 03PM - BUSHT

- 11. Compliance with NOx, CO, and NH3 emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
- 12. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
- 13. The following methods shall be used for testing required by this permit: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or 10B or ARB Method 100, Stack gas Oxygen EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
- 14. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
- 15. If the NOx, CO or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]
- 16. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703]
- 17. Ammonia emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 15% O2. [District Rule 4703]
- 18. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 15% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703]
- 19. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b); District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit

- 20. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 21. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
- 22. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H2S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
- 23. If this unit is fired on supplier-certified natural gas, then copies of fuel certifications (or specifications) and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-1543-7-10

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

2,500 MMBTU/HR AIR-ASSISTED FLARE WITH VAPOR KNOCKOUT TANK MS-701A AND B, PILOT GAS SCRUBBER MS-705. AND VENT HEADER DISCHARGING TO FLARE

### **PERMIT UNIT REQUIREMENTS**

- 1. Flare system shall also be equipped with relief headers discharging into KO tanks and purge gas supply piping from scrubber MS-103 to relief headers. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Condensate collected in KO tanks and scrubber shall be piped to closed drain blowdown vessel MS-710. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Except during breakdown and emergency events, sulfur content of flare pilot fuel gas and flared gas shall not exceed 75 ppm by volume calculated as sulfur. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Operation of the flare for other than as allowed by the total gas consumption rate limit, shall be limited to emergency use and breakdowns as defined in District Rule 1100 (amended December 17, 1992). [District NSR Rule and Rule 1100, 3.1 and Kern County Rule 111] Federally Enforceable Through Title V Permit
- 6. Operation of flare for other than maintenance and testing, and as allowed by the total gas consumption limit shall be limited to unforeseen electrical power outages, breakdowns as defined in District Rule 1100 (amended December 17, 1992), or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) does not exceed 24 hours duration; 2) is not due to neglect or disregard of air pollution laws or rules; 3) is not intentional or the result of negligence; 4) is not due to improper maintenance; 5) does not constitute a nuisance; and 6) is not a recurrent breakdown of the same equipment. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. The owner or operator shall notify the District of any emergency use of the flare as soon as reasonably possible, but no later than one hour after the total gas consumption limit is exceeded unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. [District Rule 1070, 3.0] Federally Enforceable Through Title V Permit
- 8. The permittee shall report to the District in writing within ten days following the emergency use of the flare. The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use. [District Rule 1070, 3.0] Federally Enforceable Through Title V Permit
- 9. Permittee shall maintain accurate daily records of the amounts of flared gas during emergency operation and under normal operation for a period of five years and make such records readily available for District inspection upon request. [District Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-7-10: Apr 29 2010 3 03PM -- BUSH1

- 10. Permittee shall maintain accurate weekly records of pilot and waste gas sulfur content and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule; Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule; Rules 1070, 4.0, 2520, 9.4.2, and 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 12. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 13. Flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rule 4311, 5.6; 40 CFR 60.18(c)(1) and 40 CFR 63.11(b)(4)] Federally Enforceable Through Title V Permit
- 14. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once a year for a period of two hours. A record containing the results of these observations shall be maintained, which includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rules 2520, 9.4.2 and 4311, 5.6 and 40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
- 15. The operator shall maintain all records of required monitoring data and support information for District inspection at any time. [District Rule 2520, 9.5.2 and Rule 4311, 5.6] Federally Enforceable Through Title V Permit
- 16. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 17. Flare shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater. [District Rule 4311, 5.6 and 40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
- 18. The net heating value of the gas being combusted in a flare shall be determined annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18 and ASTM D1946. [District Rule 4311, 5.6 and 40 CFR 60.18 (f)(3)] Federally Enforceable Through Title V Permit
- 19. Air-assisted flares shall be operated with an exit velocity less than the velocity Vmax as determined by the methods specified in 40 CFR 60.18 (f)(6), [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
- 20. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [District Rule 4311, 5.6 and 40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
- 21. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. This requirement does not apply during required maintenance of the flare. [District Rule 4311, 5.6; 40 CFR 60.18 (c)(2); 40 CFR 60.18 (e); and 40 CFR 60.18 (f)(2)] Federally Enforceable Through Title V Permit
- 22. Fuel gas sulfur content shall not exceed 75 ppm by volume calculated as sulfur. [District NSR Rule; District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-7-10: Apr 28 2010 3 03PM -- BUSHT

**PERMIT UNIT:** S-1543-8-5 **EXPIRATION DATE:** 05/31/2009

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON LPG AND NATURAL GAS TRUCK LOADING OPERATION INCLUDING PROPANE, NATURAL GASOLINE, AND ISOBUTANE LOADING STATIONS AND SIX 30 HP LOADING PUMPS - TWO FOR PROPANE (P-801A AND B), TWO FOR ISOBUTANE (P-803A AND B), AND TWO FOR NATURAL GAS (P-804A AND B)

#### PERMIT UNIT REQUIREMENTS

- 1. Loading rack shall include two loading stations and each loading station shall include three loading couplers and may include one loading hose for each loading coupler, one vapor return hose with return coupler, and pressurized nitrogen connector purge system. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 2. Operation shall include loadout lines, vapor return lines and components (including pumps PP-803A and B) serving butane/natural gasoline tanks, MS-803A and B, MS 804A, B, C, and D. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 3. Operation shall include loadout lines, vapor return lines and components (including pumps PP-805A and B) serving butane/natural gasoline tanks, MS-805A, B, C, and D. [District NSR Rule and 4624, 5.4] Federally Enforceable Through Title V Permit
- 4. Operation shall include loadout lines, vapor return lines and components (including pumps PP-801A and B) serving permit exempt propane pressurized tanks. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 5. Truck loading operation shall include vapor return lines to the associated storage vessels. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 6. Truck loading operation shall include relief drain header discharging into product storage area drain tank MS-805. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. When loading, trucks shall vent only to vapor return hoses. [District NSR Rule; District Rule 4624, 5.1.2; and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 8. All centrifugal pumps shall be equipped with mechanical seals with seal pressure alarms set at the seal failure pressure setting. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Fugitive volatile organic compound (VOC) emission rate shall not exceed the limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Liquid loading and vapor return couplers shall minimize leaks to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Spare loading pumps shall not be operated while main pumps are in operation. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Loading connectors shall establish a gas-tight seal with delivery vessels prior to commencing loading. [District NSR Rule; District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA S-1543-B-5: Apr 25 2010 3 03PM -- BUSHT

- 13. Records of inspections, repairs and maintenance of fugitive VOC sources shall be kept and made readily available for District inspection. [District Rule 4624, 6.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 14. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that VOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid loaded. [District Rule 4624, 5.1.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 15. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded; or Class 2 loading facilities equipped with a system to control at least 95% of VOC displaced. [District Rule 4624, 5.3 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 16. Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.5 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 17. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mls per average of 3 consecutive disconnects. [District Rule 4624, 5.4 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 18. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, smell and instrument methods to detect leaks. Instrument detection shall be conducted using EPA Method 21 and shall be measured at a distance of one centimeter from the potential source. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane and air at a concentration of about, but less than, 10,000 ppm methane. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 19. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of monthly drainage inspections at disconnect for each loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 20. Drainage inspections shall be completed before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 21. Each detected leak shall be repaired within 15 calendar days of detection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 22. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 23. Analysis of halogenated exempt compounds shall be by ARB Method 432. [District Rule 4624, 6.2.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
- 24. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

25. All records necessary to determine compliance with the VOC emission limit for this unit shall be maintained for a period of at least 5 years and shall include component counts and recognized emission factors for fugitive emission sources. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-1543-9-2

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804A

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS-PLANT,CA 5-1543-6-2: Apr 29 2010: 3 03PM -- BUSH1

**PERMIT UNIT: S-1543-10-2** 

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804B

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-10-2: Apr 25 2010 3 03PM -- BUSHT

**PERMIT UNIT: S-1543-11-2** 

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804C

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-11-2: Apr 29 2010: 3.03PM - BUSHT

**PERMIT UNIT:** S-1543-12-2

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804D

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-12-2: Apr 29 2010 303PM - BUSHT

**PERMIT UNIT:** S-1543-13-3

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

OIL-WATER SEPARATION OPERATION INCLUDING CLOSED DRAIN BLOWDOWN VESSEL MS-710, PUMP PP-710, WASTEWATER PUMP PP-806, PRODUCT STORAGE AREA DRAIN TANK MS-805, AND DRAIN PUMP PP-805

### PERMIT UNIT REQUIREMENTS

- 1. Oil-water separation operation shall include drain headers from Permit No. S-1543-8 to tank MS-805 and from Permit Nos. S-1543-4, S-1543-5, S-1543-6, and S-1543-7 to drain vessel MS-710. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Closed drain blowdown vessel MS-710 shall control at least 99% of all volatile organic compound (VOC) emissions from wastewater. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Slop oil recovered from drain vessel MS-710 shall be piped to light oil dehydration facility. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Fugitive volatile organic compound (VOC) emission rate shall not exceed the limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-15-3: Apr 29 2010 3 04PM -- BUSHT

**PERMIT UNIT:** S-1543-18-1

**EXPIRATION DATE:** 05/31/2009

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

1,500 HP ELECTRIC MOTOR DRIVEN COOPER-BESSEMER MODEL FM-4 INLET GAS COMPRESSOR

### PERMIT UNIT REQUIREMENTS

1. Volatile organic compound (VOC) emissions shall not exceed 0.96 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA 5-1543-18-1 : Ap 29 2010 304PM -- BUSHT

PERMIT UNIT: S-1543-25-4 EXPIRATION DATE: 05/31/2009

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL #8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR

### PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- Sulfur compound emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801 and Kern County Rule 407]
   Federally Enforceable Through Title V Permit
- 3. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 4. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 8. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 9. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 10. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 11. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit
- 12. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District NSR Rule and District Rules 4701, 5.1, and 4702, 5.1] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-25-4: Apr 26 2010 3 04PM - BUSHT

- 13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 14. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 16. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3.1] Federally Enforceable Through Title V Permit
- 17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmy, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Methods 18, 25A or 25B, or ARB Method 100. [District Rules 1081, 4701, 6.4, and 4702, 6.4] Federally Enforceable Through Title V Permit
- 20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 and GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

- 24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit
- 26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-1543-26-3 **EXPIRATION DATE:** 05/31/2009

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL #8G-825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. Sulfur compound emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801] Federally Enforceable Through Title V Permit
- 4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 5. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 9. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 10. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 11. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 12. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (l&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-26-3: Apt 29 2010 3/04PM -- BUSHT

- 13. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.0048 g-SOx/hp-hr, 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District Rules 2201, 4701, 5.1, and 4702, 5.1] Federally Enforceable Through Title V Permit
- 14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 15. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 17. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3.1] Federally Enforceable Through Title V Permit
- 18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 20. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25A or 25B, ARB Method 100, or EPA Method 18 referenced as methane. [District Rules 1081, 4701, 6.4, and 4702, 6.4] Federally Enforceable Through Title V Permit
- 21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 23. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246, or GC for H2S and mercaptans. [District Rule 2201] Federally Enforceable Through Title V Permit

- 24. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 26. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** S-1543-27-3

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

800 BHP SUPERIOR MODEL 8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR

#### PERMIT UNIT REQUIREMENTS

**EXPIRATION DATE: 05/31/2009** 

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 2. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 0.88 grains/100 dscf. [District NSR Rule and District Rule 4801, 3.1] Federally Enforceable Through Title V Permit
- 3. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 2.9 lb/VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Fugitive VOC emissions calculations shall be performed using EPA publication 453/R-95-017, Table 2-4 emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Permittee shall maintain a current listing of all fugitive components installed with this engine compressor and corresponding VOC emissions calculations to verify compliance with fugitive VOC emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. When this unit is not operated (dormant for Rule 4702) the fuel line shall be physically disconnected from this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 7. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 8. Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 9. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 10. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Maintenance (I&M) plan submitted to the District. [District Rule 4702, 6.5.] Federally Enforceable Through Title V Permit
- 11. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.071 g-NOx/hp-hr), 0.0048 g-SOx/hp-hr, 0.003 g-PM10/hp-hr, 70 ppmvd CO @ 15% O2 (equivalent to 0.603 g-CO/hp-hr), or 14 ppmvd VOC @ 15% O2 (equivalent to 0.069 g-VOC/hp-hr). [District NSR Rule, 4701, 5.1, and 4702, 5.1] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-27-3: Atr 29 2010 3 04PM -- BUSHT

- 12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.1, 6.5.2] Federally Enforceable Through Title V Permit
- 13. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.3, 6.5.4] Federally Enforceable Through Title V Permit
- 14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.6] Federally Enforceable Through Title V Permit
- 15. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3.1] Federally Enforceable Through Title V **Permit**
- 16. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- 17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmy, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3.2] Federally Enforceable Through Title V Permit
- The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 25A or 25B or 18, or ARB Method 100. [District Rules 1081, 4701, 6.4, and 4702, 6.4] Federally Enforceable Through Title V Permit
- 19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 and GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: AERA ENERGY LLC BELRIDGE GAS PLANT.CA Location: S-1543-27-3 · Apr 29 2010 3 04PM · BUSHT

- 23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 5.4.1 and 4702, 5.6.1, 6.5.7] Federally Enforceable Through Title V Permit
- 24. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit
- 25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-27-3: Apr 29 2010 3 04PM -- BUSHI

PERMIT UNIT: S-1543-33-11 EXPIRATION DATE: 05/31/2009

SECTION: SE32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

3,600 MMBTU/HR KALDAIR INDAIR LIMITED USE PRODUCED GAS FLARE WITH COANDA EFFECT FLARE TIP

#### PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. Flare shall be equipped with recording, volumetric flow meters that shall be used to individually monitor and record the volumes of produced gas, pilot gas and sweep gas combusted in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
- 4. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
- 5. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance and unforeseen or necessary planned power outages. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
- 6. The sulfur content of produced gas combusted in the flare shall not exceed 1,000 ppmv. Sulfur content of pilot gas and sweep gas shall not exceed 15 ppmv (as H2S). [District Rule 2201, District Rule 4801, 3.1, and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 7. Maximum amount of gas combusted shall not exceed 60,000 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Maximum amount of gas combusted shall not exceed 90,000 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx (as NO2): 0.068 lb/MMBtu; SOx (as SO2): 0.14 lb/MMBtu; PM10: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Total quantity of pilot gas and sweep gas combusted in the flare shall not exceed 15 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Permittee shall measure the sulfur content of the produced gas combusted in the flare and the H2S concentration of the pilot/sweep gas by District witnessed, or authorized, sample collection by ARB certified testing laboratory annually. [District Rules 1081, 7.2 and 2201] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-33-11 - Agr 29 2010 3 04PAT - BUSHT

- 12. The sulfur content of the produced gas flared shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H2S and Mercaptans. H2S concentration (ppmv) of the pilot/sweep gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rules 1081 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 13. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once a year for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 14. The higher heating value of the pilot gas, sweep gas, and flared gas shall be monitored at least quarterly. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. The operator shall maintain all records of required monitoring data and support information for District inspection at any time. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
- 17. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 18. Permittee shall maintain accurate records of the daily quantities of produced gas and pilot and sweep gas combusted in the flare. [District Rules 2201 and Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 19. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-33-11: Apr 26 2010 3.04PM – BUSHT

**PERMIT UNIT: S-1543-34-1** 

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805A

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA 5-1543-34-1; Apr 20 2010 3;04PM -- BUSHT

**PERMIT UNIT:** S-1543-35-1

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805B

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-35-1: Apr 29 2010 3 04PM -- BUSHT

**PERMIT UNIT:** S-1543-36-1

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805C

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA S-1543-36-1: Apr 29 2010 3:04PM - BUSHT

**PERMIT UNIT: S-1543-37-1** 

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805D

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA S-1543-37-1: Apr 29 2010 3 04PM -- BUSHT

**PERMIT UNIT: S-1543-39-1** 

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803A

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA 9-1543-39-1: Apr 29 2010 3 04PM -- BUSHT

**PERMIT UNIT:** S-1543-40-1

**EXPIRATION DATE: 05/31/2009** 

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803B

#### PERMIT UNIT REQUIREMENTS

- 1. Truck loading from this tank shall only be through the truck loading operation described in Permit No. S-1543-8. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Tank draining shall be through the closed drain headers described in Permit No. S-1543-13. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Total stationary source fugitive component VOC emissions shall not exceed limit listed on S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Permittee shall maintain accurate records of inspections, repairs, and maintenance and shall make such records available for District inspection for five years. [District Rules 1070, 4.0 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT, CA \$-1543-40-1: Apr 26 2010 3 04PM -- BUSHT

**PERMIT UNIT:** S-1543-41-1

**EXPIRATION DATE:** 05/31/2009

#### **EQUIPMENT DESCRIPTION:**

VARIOUS UNSPECIFIED LOCATIONS IN SOUTH BELRIDGE OIL FIELD, HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION UTILIZING UP TO 15 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS, FLEXIBLE-PIPING, AND STINGER-TYPE INJECTION FITTINGS

#### PERMIT UNIT REQUIREMENTS

- 1. Permittee shall notify the SJVUAPCD of each location at which an H2S scavenger chemical storage and injection operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Chemical storage and injection operations shall not be located within 1000 feet of a school. [District Rule 4102]
- 3. Each chemical storage tank shall have a maximum rated capacity of 500 gallons or less and up to eight injection points. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. The maximum throughput of each chemical storage tank shall not exceed 500 gallons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. True vapor pressure of materials stored in each chemical tank shall not exceed 0.25 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. VOC emissions from the H2S scavenger injection equipment shall be less than 0.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Permittee shall maintain accurate fugitive component counts and resultant emissions calculated using Table 2-4 of U.S. EPA Publication 453/R-95-017. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Accurate records of the dates and amounts of chemical deliveries for each chemical injection site and fugitive component counts shall be retained and made available for District inspection upon request for a period of 5 years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: AERA ENERGY LLC Location: BELRIDGE GAS PLANT,CA \$-1543-41-1 - Apr 29 2010 3:04PM - BUSHT

## ATTACHMENT C

**Detailed Facility List** 

**AERA ENERGY LLC** 

## Detailed Facility Report For Facility=1543

FAC#

Sorted by Facility Name and Permit Number

S 1543

TYPE: TitleV TOXIC ID: 50233

EXPIRE ON:

05/31/2009 22 / 31

4/29/10

4:53 pm

BELRIDGE GAS PLANT CA			STATUS: TELEPHONE:		S 1543 A (661) 665-5279		TOXIC ID: 50233 AREA: 22 / 31  INSP. DATE: 10/10
PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1543-4-19	800-1600 hp	3020-01 G	1	815.00	815.00	Α	GAS PROCESSING PLANT WITH INLET GAS SCRUBBERS, INLET GAS FILTER SEPARATOR(S), SULFUR REMOVAL VESSEL EXHAUST GAS TREATMENT SYSTEM, SULFUR REMOVAL PROCESS PLANT WITH 1.9 MMBTU/HR THERMAL OXIDIZER, FRACTIONATION SECTION, ETHYLENE GLYCOL INJECTION, PROPANE REFRIGERATION, HEAT TRANSFER OIL CIRCULATION SYSTEM, FUEL GAS SYSTEM, AND METHANOL INJECTION
S-1543-5-10	19,500 KBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	13.6 MMBTU/HR GAS FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR - OPERATION A
S-1543-6-15	19.5 MMBtu/hr heat input	3020-02 H	1	1,030.00	1,030.00	A	13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK TM SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION B
S-1543-7-10	2,500,000 KBtu/hr	3020-02 H	1	1,030.00	1,030.00	Α	2,500 MMBTU/HR AIR-ASSISTED FLARE WITH VAPOR KNOCKOUT TANK MS-701A AND B, PILOT GAS SCRUBBER MS-705, AND VENT HEADER DISCHARGING TO FLARE
S-1543-8-5	60,000 GALLONS	3020-05 D ⊖	1	185.00	185.00	A	60,000 GALLON LPG AND NATURAL GAS TRUCK LOADING OPERATION INCLUDING PROPANE, NATURAL GASOLINE, AND ISOBUTANE LOADING STATIONS AND SIX 30 HP LOADING PUMPS - TWO FOR PROPANE (P-801A AND B), TWO FOR ISOBUTANE (P-803A AND B), AND TWO FOR NATURAL GAS (P-804A AND B)
S-1543-9-2	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804A
S-1543-10-2	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS- 804B
\$-1543-11-2	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804C
S-1543-12-2	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-804D
S-1543-13-3	19 hp electric motors	3020-01 A	1	87.00	87.00	Α .	OIL-WATER SEPARATION OPERATION INCLUDING CLOSED DRAIN BLOWDOWN VESSEL MS-710, PUMP PP-710, WASTEWATER PUMP PP- 806, PRODUCT STORAGE AREA DRAIN TANK MS-805, AND DRAIN PUMP PP-805
S-1543-18-1	1,500 hp electric motor	3020-01 G	1	815.00	815.00	Α	1,500 HP ELECTRIC MOTOR DRIVEN COOPER-BESSEMER MODEL FM-4 INLET GAS COMPRESSOR

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE_TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1543-21-0	NOZZLE	3020-11 A	2	34.00	68.00	D	ONE 10,000 AND ONE 12,000 GALLON UNDERGROUND STORAGE TANKS SERVED BY PHASE I VAPOR RECOVERY SYSTEM (G-70-97) AND TWO NOZZLES SERVED BY PHASE II VAPOR RECOVERY SYSTEM (G-70-52 CANCELED BY PERMITTEE @ RENEWAL BILLING, TEG-5/27/98))
S-1543-23-0	0.75 HP MOTOR	3020-01 A	1	87.00	87.00	D	0.75 HP TOTAL, BULK LOADOUT OPERATION (BELRIDGE WAREHOUSE) CANCELED BY PERMITTEE @ RENEWAL BILLING, TEG-5/27/98)
S-1543-24-0	< 100 HP	3020-01 C		197.00	197.00	D	TEMPORARY REPLACEMENT UNIT - LIQUIFIED PETROLEUM GAS & NATURAL GASOLINE TRUCK LOADING OPERATION INCLUDING TWO LOADING PUMPS, TWO LOADING LINES, TWO VAPOR RETURN LINES, VAPOR RETURN HEADER, AND RELIEF DRAIN HEADER DISCHARGING TO TANK V-805
S-1543-25-4	800 hp IC engine	3020-10 E	1	602.00	602.00	Α	800 BHP SUPERIOR MODEL #8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR
S-1543-26-3	800 bhp IC engine	3020-10 E	1	602.00	602.00	Α	800 BHP SUPERIOR MODEL #8G-825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM POWERING A GAS COMPRESSOR
S-1543-27-3	800 hp IC engine	3020-10 E	1	602.00	602.00	Α	800 BHP SUPERIOR MODEL 8G 825 NATURAL GAS-FIRED IC ENGINE WITH THREE-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR
S-1543-33-11	3600 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	Α	3,600 MMBTU/HR KALDAIR INDAIR LIMITED USE PRODUCED GAS FLARE WITH COANDA EFFECT FLARE TIP
S-1543-34-1	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805A
S-1543-35-1	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805B
S-1543-36-1	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805C
S-1543-37-1	60,000 GALLONS	3020-05 D	1	185.00	185.00	Α	60,000 GALLON NATURAL GASOLINE STORAGE TANK MS-805D
S-1543-39-1	15,000 GALLONS	3020-05 B	1	93.00	93.00	Α	15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803A
S-1543-40-1	15,000 GALLONS	3020-05 B	1	93.00	93.00	<b>A</b>	15,000 GALLON NATURAL GASOLINE/BUTANE STORAGE TANK MS-803B
S-1543-41-1	7,500 GALLONS	3020-05 B	1	93.00	93.00	А	VARIOUS UNSPECIFIED LOCATIONS IN SOUTH BELRIDGE OIL FIELD. HYDROGEN SULFIDE (H2S) SCAVENGER CHEMICAL STORAGE AND INJECTION OPERATION UTILIZING UP TO 15 CHEMICAL STORAGE TANKS (CAPACITY OF 500 GALLONS OR LESS) EACH EQUIPPED WITH A CATCH BASIN AND ASSOCIATED COMPONENTS INCLUDING LIQUID TRANSFER PUMP(S), VALVES, FLANGES, THREADED CONNECTIONS. FLEXIBLE-PIPING, AND STINGER-TYPE INJECTION FITTINGS

SJVUAPCD SOUTHERN

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1543-42-0	miscellaneous	3020-06	1	105.00	105.00	D	SULFUR REMOVAL SYSTEM CONSISTING OF TWO SULFA TREAT GAS SWEETENING VESSELS, FREE WATER KNOCKOUT VESSEL(S), AND ASSOCIATED PIPING AS A TEMPORARY REPLACEMENT EMISSIONS UNIT (TREU) FOR EXISTING SULFUR REMOVAL SYSTEM LISTED ON PTO S-1543-4-6
S-1543-43-0	100 bbl tank	3020-05 A	1	75.00	75.00	Α	100 BBL METHANOL TANK MT-703

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