



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 05 2012

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

**Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # 1120630**

Dear Mr. Rios:

The Air Pollution Control Officer has issued an Authority to Construct (S-1547-1209-6) with a Certificate of Conformity to Aera Energy, LLC. Aera proposed to allow the use of beam-driven casing gas compressors on TEOR production wells at additional locations.

Enclosed are copies of the Authority to Construct. The application and proposal were sent to US EPA Region IX on May 2, 2012. No comments were received following the District's preliminary decision on this project.

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

Sincerely,


David Warner
Director of Permit Services

Enclosures
SAR

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

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

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



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 05 2012

Mr. John Haley
Aera Energy, LLC
PO Box 11164
Bakersfield, CA 93389-1164

**Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # 1120630**

Dear Mr. Haley:

The Air Pollution Control Officer has issued an Authority to Construct (S-1547-1209-6) with a Certificate of Conformity to Aera Energy, LLC. Aera proposed to allow the use of beam-driven casing gas compressors on TEOR production wells at additional locations.

Enclosed is the Authority to Construct and invoice. The application and proposal were sent to US EPA Region IX on May 2, 2012. No comments were received following the District's preliminary decision on this project.

Prior to operating with modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5.

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

Sincerely,



David Warner
Director of Permit Services

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Due Date
8/6/2012

Amount Due
\$ 1,063.00

Amount Enclosed

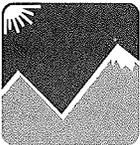
ATCFEE S1120630
1547 S100668 6/5/2012

RETURN THIS TOP PORTION ONLY, WITH REMITTANCE TO:

AERA ENERGY LLC
PO BOX 11164
BAKERSFIELD, CA 93389-1164

SJVAPCD
34946 Flyover Court
Bakersfield, CA 93308

Thank You!



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

SJVAPCD Tax ID: 77-0262563

Facility ID
S1547

Invoice Date
6/5/2012

Invoice Number
S100668

Invoice Type
Project: S1120630

AERA ENERGY LLC
HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

PROJECT NUMBER: 1120630

APPLICATION FILING FEES	\$ 71.00
ENGINEERING TIME FEES	\$ 1,063.00
TOTAL FEES	\$ 1,134.00
LESS PREVIOUSLY PAID PROJECT FEES APPLIED TO THIS INVOICE	(\$ 71.00)
PROJECT FEES DUE (Enclosed is a detailed statement outlining the fees for each item.)	\$ 1,063.00

Late Payment (see Rule 3010, Section 11.0 Late Fees)	
Postmarked	Total Due
After 8/6/2012 through 8/16/2012	\$ 1,169.30
After 8/16/2012	\$ 1,594.50
After 9/5/2012	Permits To Operate MAY BE SUSPENDED

San Joaquin Valley Air Pollution Control District
34946 Flyover Court, Bakersfield, CA 93308, (661) 392-5500, Fax (661) 392-5585

Invoice Detail

Facility ID: S1547

AERA ENERGY LLC
 HEAVY OIL WESTERN STATIONARY SOURCE
 KERN COUNTY, CA

Invoice Nbr: S100668
 Invoice Date: 6/5/2012
 Page: 1

Application Filing Fees

Project Nbr	Permit Number	Description	Application Fee
S1120630	S-1547-1209-6	MODIFICATION OF UP TO FIFTY THERMALLY ENHANCED OIL RECOVERY WELLS WITH BEAM-DRIVEN CASING GAS COMPRESSORS OPERATED WITH PRODUCED GAS ROUTED TO PRODUCED FLUID LINE (BELRIDGE OIL FIELD): ALLOW THE USE OF BEAM-DRIVEN CASING GAS COMPRESSORS ON THERMALLY-ENHANCED PRODUCTION WELLS WITHIN SECTION 12 T30S R21E AND SECTION 26 T29S R21E	\$ 71.00
Total Application Filing Fees:			\$ 71.00

Engineering Time Fees

Project Nbr	Quantity	Rate	Description	Fee
S1120630	10.8 hours	\$ 105.00 /h	Standard Engineering Time	\$ 1,134.00
			Less Credit For Application Filing Fees	(\$ 71.00)
			Standard Engineering Time SubTotal	\$ 1,063.00
Total Engineering Time Fees:				\$ 1,063.00

San Joaquin Valley Air Pollution Control District

Account Summary

Facility ID: S1547

AERA ENERGY LLC
 HEAVY OIL WESTERN STATIONARY SOURCE
 KERN COUNTY, CA

Statement Date: 6/5/2012

Invoice Date	Invoice Number	Invoice Due Date	Description of Fees		Amount Due
04/01/2012	S99376	05/31/2012	12/13 Annual PEER Renewal	Fees Invoiced	\$ 557.60
				Late Charges	\$ 13.74
				Payments	<u>(\$ 420.20)</u>
				Balance Due	\$ 151.14
04/19/2012	S99800	06/18/2012	Title V Hourly Fees: 1st Quarter 2012		\$ 210.00
05/02/2012	S100192	07/02/2012	Federally Mandated Ozone Nonattainment Fee	Fees Invoiced	\$ 26,337.06
				Payments	<u>(\$ 25.00)</u>
				Balance Due	\$ 26,312.06
05/02/2012	S100608	07/02/2012	Federally Mandated Ozone Nonattainment Fee		\$ 9,128.74
05/08/2012	S100247	08/03/2012	Project: S1120426	Fees Invoiced	\$ 2,047.50
				Payments	<u>(\$ 71.00)</u>
				Balance Due	\$ 1,976.50
05/30/2012	S100648	07/02/2012	Rule 4320 Emissions Fees		\$ 2,625,165.12
06/05/2012	S100668	08/06/2012	Project: S1120630	Fees Invoiced	\$ 1,134.00
				Payments	<u>(\$ 71.00)</u>
				Balance Due	\$ 1,063.00
				Total Outstanding Balance:	\$ 2,664,006.56



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1547-1209-6

ISSUANCE DATE: 06/05/2012

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: PO BOX 11164
BAKERSFIELD, CA 93389-1164

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: NW 36 **TOWNSHIP:** 27S **RANGE:** 20E

EQUIPMENT DESCRIPTION:

MODIFICATION OF UP TO FIFTY THERMALLY ENHANCED OIL RECOVERY WELLS WITH BEAM-DRIVEN CASING GAS COMPRESSORS OPERATED WITH PRODUCED GAS ROUTED TO PRODUCED FLUID LINE (BELRIDGE OIL FIELD); ALLOW THE USE OF BEAM-DRIVEN CASING GAS COMPRESSORS ON THERMALLY-ENHANCED PRODUCTION WELLS WITHIN SECTION 12 T30S R21E AND SECTION 26 T29S R21E

CONDITIONS

1. 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 Rule 2201] Federally Enforceable Through Title V Permit
2. 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
3. Beam-driven casing gas compressors authorized by this PTO shall only be located in NW Section 36 and Section 25 in T27S, R20E, Sections 7, 18, 20, 28, 29, 33, 34 and 35 in T28S, R21E, Section 12, T30S, R21E and Section 26, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Produced gas shall be routed to produced fluid line prior to entering crude oil storage tanks. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
6. All produced fluids (gas, water, oil) from TEOR wells shall be sent to tanks served by a vapor control system with 99% control efficiency. [District Rule 2201] 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.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1547-1209-6 : Jun 5 2012 8:36AM -- ROEDERS : Joint Inspection Required with ROEDERS

7. Permittee shall implement an I&M program consistent with all applicable requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
8. The VOC content of the casing gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The casing gas from each well shall be sampled for VOC content within 30 days of retrofitting each well with a beam-driven compressor. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct representative VOC quarterly sampling of the well casing gas on 20% of the active wells equipped with beam-driven compressors. If the gas sampled is 10% or less VOC by weight for eight consecutive quarterly samplings, the sampling frequency shall only be required annually. If a test shows noncompliance with the percent VOC requirement, the source must return to quarterly testing until eight consecutive quarters show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
11. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 14, 2006). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
12. The annual inspection requirements of Section 5.8.1 through Section 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt %) or less, as determined by the test methods in Section 6.3.5 of Rule 4401. [District Rule 4401 4.9] Federally Enforceable Through Title V Permit
13. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit
14. An operator shall be in violation of this rule if any District inspection demonstrates the existence of a component with a major liquid leak, a component with a gas leak greater than 50,000 ppmv, or 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 as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit
15. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
16. An operator shall be in violation of this rule if any District inspection demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit
17. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit
18. 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 with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit
19. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit
21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit
22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit
23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit
24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit
25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit
26. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit
27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component 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. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit
28. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit
29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit
30. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit
31. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit
32. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit
33. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit
35. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit
36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit
37. An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit
38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit
39. 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 4401 6.3.1] Federally Enforceable Through Title V Permit
40. Leak inspection, other than audio-visual, and 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 instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit
41. 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 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.5] Federally Enforceable Through Title V Permit
42. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4401, 6.1] Federally Enforceable Through Title V Permit