



MAY 12 2010

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

**Re: Notice of Significant Title V Permit Modification
District Facility # S-1547
Project # 1093738**

Dear Mr. Rios:

Enclosed for you to review is the District's analysis of an application for significant Title V permit modification for the facility identified above. Aera Energy LLC is proposing a Title V significant permit modification to incorporate the recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13 into the Title V operating permit (see enclosures). The ATCs authorize rerating and revision of startup and shutdown conditions of a heater treater.

Enclosed are the current Title V permit, recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13, proposed modified Title V permit, engineering evaluation, and application. 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 that begins on the date you receive this letter.

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

DW: RE/cm

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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



MAY 12 2010

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

**Re: Notice of Significant Title V Permit Modification
District Facility # S-1547
Project # 1093738**

Dear Mr. Tollstrup:

Enclosed for you to review is the District's analysis of an application for significant Title V permit modification for the facility identified above. Aera Energy LLC is proposing a Title V significant permit modification to incorporate the recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13 into the Title V operating permit (see enclosures). The ATCs authorize rerating and revision of startup and shutdown conditions of a heater treater.

Enclosed are the current Title V permit, recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13, proposed modified Title V permit, engineering evaluation, and application. 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 that begins on the date you receive this letter.

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.

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MAY 12 2010

Adean Valenzuela
Aera Energy LLC
PO Box 11164
Bakersfield, CA

**Re: Notice of Significant Title V Permit Modification
District Facility # S-1547
Project # 1093738**

Dear Ms. Valenzuela:

Enclosed for you to review is the District's analysis of an application for significant Title V permit modification for the facility identified above. Aera Energy LLC is proposing a Title V significant permit modification to incorporate the recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13 into the Title V operating permit (see enclosures). The ATCs authorize rerating and revision of startup and shutdown conditions of a heater treater.

Enclosed are the current Title V permit, recently issued Authorities to Construct (ATCs) S-1547-995-12 and '-995-13, proposed modified Title V permit, engineering evaluation, and application. 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 that begins on the date you receive this letter.

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

DW: RE/cm

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**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED MODIFICATION OF
FEDERALLY MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed modification of the Federally Mandated Operating Permit to Aera Energy LLC for its heavy oil production stationary source within the western Kern County fields, California. The ATCs authorize rerating and revision of startup and shutdown conditions of a heater treater.

The District's analysis of the legal and factual basis for this proposed action, project #1093738, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested by the public, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial 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.

TITLE V APPLICATION REVIEW

Significant Modification

Project #: S-1093738

Engineer: Richard Edgehill

Date: 05/03/10

Facility Number: S-1547
Facility Name: Aera Energy LLC
Mailing Address: PO Box 11164
Bakersfield, CA 93389-1164

Contact Name: Adean Valenzuela
Phone: (661) 665-5335

Responsible Official: David C Shuck
Title: Process Supervisor

I. PROPOSAL

Aera Energy LLC is proposing a Title V Significant Modification to incorporate recently issued Authorities to Construct (ATC) S-1547-995-12 and 13 into the Title V operating permit. The ATCs authorize rerating and revision of startup and shutdown conditions of a heater treater.

ATC S-1547-995-12

ATC S-1547-995-12 authorized removal of one of two existing 5 MMBtu/hr burners (re-rate) in order to comply with District Rule 4307 (and provide exemption from Rule 4320). The ATC also revised the time limit on the duration of start-up and shutdown from two hours (PTO S-1547-995-11) to one hour and included a requirement for maintaining records of the duration of each start-up and shutdown as stated in the conditions below:

18. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307] Y
19. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Y

ATC S-1547-995-13

Condition #21 of ATC S-1547-995-13 revised Condition # 19 of ATC S-1547-995-12 by requiring that records be maintained only for startups and shutdowns over two hours in duration as stated in the following condition:

21. Permittee shall maintain records of duration of each start-up and shutdown that exceed two hours per occurrence for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Y

As explained below this condition is not correct and should have required maintenance of records of the duration of each start-up and shutdown exceeding one hour per occurrence.

Proposed Administrative Revision

Rule 4307, Section 6.1.4 requires that records be kept of the duration of start-up or shutdown that exceed the applicable requirements of Sections 5.4.1 or 5.4.2 which for the subject heater treater is one hour as it is not equipped with NOx emission control i.e. "a device or technique used to treat a unit's exhaust combustion gas to reduce NOx emissions which includes, but is not limited to, selective catalytic reduction or nonselective catalytic reduction."

Therefore, Condition # 21 of ATC S-1547-995-13 will be administratively revised (in this project) to require records of the duration of startups and shutdowns exceeding one hour (not two hours).

Relaxation in Recordkeeping Requirement

A record-keeping requirement of the duration of startups and shutdowns that exceed one hour (and not all startup and shutdowns as required by PTO S-1547-995-11) is a relaxation of recordkeeping requirements and therefore is a Title V Significant Modification.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

Aera Energy LLC is located within the Heavy Oil Western Stationary Source in Kern County, CA. The equipment is located at the NW quadrant of Section 14 Township 31S Range 22E.

III. EQUIPMENT DESCRIPTION

PTO S-1547-995-14: 5 MMBTU/HR GAS-FIRED HEATER TREATER WITH ONE 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNERS AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE)

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a Title V Significant Modification because the applicant did not originally apply for a Certificate of Conformity (COC) with the original New Source Review (NSR) Authorities to Construct (ATCs). As such, this project requires public review.

V. DESCRIPTION OF PROPOSED MODIFICATIONS

Aera Energy LLC is proposing to re-rate a heater treater from 10 MMBtu/hr to 5 MMBtu/hr and to revise the Rule 4307 recordkeeping requirements for startups and shutdowns.

The following new conditions (not included on PTO S-1547-995-11) are included on draft PTO S-1547-995-14 (with justification following each new condition):

Draft PTOS-1547-995-14 (new conditions)

Condition 1 - No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

Note: General condition from Rule 4102.

Condition 2 - {15} 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]

Note: General condition from Rule 4101.

Condition 3 - {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Note: General condition from Rule 4201.

Condition 21 - If the unit is tuned for compliance, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Permittee shall

maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307]

Note: Section 5.2.1.1 Rule 4307.

Condition 25 - {2982} Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rule 4307]

Note: Section 6.1.2 Rule 4307.

Condition 26 - {2981} Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201 and 4307]

Note: Section 6.1.1 Rule 4307 (relevant as the heater treater is being rerated).

The following PTO S-1547-995-11 conditions are revised as indicated below:

Condition 9 - ~~Unit shall be equipped with a~~ A non-resettable , totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201and 4307]

Note: Section 5.5.2 Rule 4307

Condition 13 - Emission rates shall not exceed any of the following: PM10: ~~3.4 lb/day~~ 1.7 lb/day, SOx (as SO2): ~~0.5 lb/day~~ 0.2 lb/day, VOC: ~~0.7 lb/day~~ 0.4 lb/day, NOx (as NO2): ~~33.6 lb/day or 3154 lb/year~~ 4.3 lb/day, or CO: ~~8.9 lb/day~~ 4.4 lb/day. [District Rule 2201] Y

Note: Revised to reflect new heat input rating.

Condition 14 - Duration of start-up and shutdown shall not exceed ~~2~~ one hours each per occurrence. [District Rule 4307]

Note: Heater treater is not equipped with NOx Emissions Control as defined by Rule 4307.

Condition 19 - If NOx emissions are monitored for compliance, ~~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 3% 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, and (6) a record of the operational characteristics monitored. [District Rule 4307]

Note: Added underlined words for additional clarity.

Condition 20 - All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule ~~4306~~ 4307. Notwithstanding the requirements above and per Section 5.5.4 of Rule 4307, for units with a cyclical firing period that routinely

interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307]

Note: Sections 5.6.2, 5.6.3, and 5.6.4 Rule 4307 requirements.

S-1547-995-11 Equipment Description Revision

40 5 MMBTU/HR GAS-FIRED HEATER TREATER WITH TWO ONE 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNER AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE)"

VI. COMPLIANCE

Section 3.20.2 states that a minor permit modifications "Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions". The project authorizes a relaxation of startup and shutdown recordkeeping requirements and therefore is a Title V Significant Modification.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

ATTACHMENTS

- I: Proposed Modified Title V Operating Permit: S-1547-995-14
- II: Authorities to Construct: S-1547-995-12 & '-995-13
- III: Application and Emission Profiles
- IV: Previous Title V Operating Permit: S-1547-995-11

ATTACHMENT I

Proposed Modified Title V Operating Permit
(S-1547-995-14)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-995-14

EXPIRATION DATE: 05/31/2007

SECTION: NW14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

5 MMBTU/HR GAS-FIRED HEATER TREATER WITH ONE 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNER AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE):

PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. {593} All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
5. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
7. {557} When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. 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 semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2; and 4307] 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.

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; and 4307] Federally Enforceable Through Title V Permit
11. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit
12. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
13. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4307, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
15. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
16. Emission rates shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 4.3 lb/day, or CO: 4.4 lb/day. [District Rule 2201 and 4307] Federally Enforceable Through Title V Permit
17. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307] Federally Enforceable Through Title V Permit
18. Permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit
19. 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 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 monitoring has been performed within the last month. [District Rules 2520, 9.4.2, and 4307] Federally Enforceable Through Title V Permit
20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after 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 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 2520, 9.4.2 and 4307] Federally Enforceable Through Title V Permit
21. If the unit is tuned for compliance, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307] 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.

22. 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 4307] Federally Enforceable Through Title V Permit
23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.5.4 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307] Federally Enforceable Through Title V Permit
24. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307] Federally Enforceable Through Title V Permit
25. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rule 4307] Federally Enforceable Through Title V Permit
26. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
27. Vessel covers, inspection hatches, etc. shall be maintained in gas-tight (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit
29. {969} All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. Gas-tight (as defined in District Rule 4623, 5.3.3) shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. {970} A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. {972} Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

34. {973} Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
35. {974} If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
37. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4306] Federally Enforceable Through Title V Permit
39. 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. 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
40. The following test methods shall be used: 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 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081 and 4307] Federally Enforceable Through Title V Permit
41. 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4306] Federally Enforceable Through Title V Permit
43. Note: Formerly S-1511-628

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

ATTACHMENT II

Authorities to Construct
(S-1547-995-12 & '-995-13)



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1547-995-12

ISSUANCE DATE: 01/13/2009

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: NW14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 10 MMBTU/HR GAS-FIRED HEATER TREATER WITH TWO 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNERS AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE); REMOVE ONE OF THE TWO EXISTING BURNERS AND RE-RATE TO 5 MMBTU/HR FOR RULE 4307 COMPLIANCE

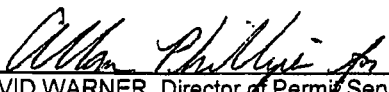
CONDITIONS

1. 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
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
6. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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
S-1547-995-12 : Jan 13 2009 7:56AM - KOZOLAC : Joint Inspection NOT Required

7. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. 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 semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2; 4307 and 4351, 6.2.1] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4307; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
12. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit
13. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4307]
14. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306, 4307, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
16. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
17. Emission rates shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 4.3 lb/day, or CO: 4.4 lb/day. [District Rule 2201 and 4307] Federally Enforceable Through Title V Permit
18. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. The permittee shall monitor and record the stack concentration of NO_x, 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 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 monitoring has been performed within the last month. [District Rules 2520, 9.4.2, 4305, 4306, and 4307] Federally Enforceable Through Title V Permit
21. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after 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 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the unit is tuned for compliance, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307]
23. 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 4305 and 4306] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.5.4 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rules 4307] Federally Enforceable Through Title V Permit
25. If NO_x emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentration corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rules 4305, 4306, and 4307] Federally Enforceable Through Title V Permit
26. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305, 4306, and 4307]
27. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, 4306, and 4307]
28. Vessel covers, inspection hatches, etc. shall be maintained in gas-tight (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Gas-tight (as defined in District Rule 4623, 5.3.3) shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
34. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
35. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
37. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
38. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted upon startup and at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

40. 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. 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
41. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081 and 4307] Federally Enforceable Through Title V Permit
42. 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
43. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit
44. Note: Formerly S-1511-628



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1547-995-13

ISSUANCE DATE: 04/06/2009

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: NW14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 5 MMBTU/HR GAS-FIRED HEATER TREATER WITH ONE 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNER AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE): REVISE CONDITION 19 LISTED ON PTO '995-12 TO READ "PERMITTEE SHALL MAINTAIN RECORDS OF DURATION OF EACH START-UP AND SHUTDOWN THAT EXCEED TWO HOURS PER OCCURRENCE FOR A PERIOD OF FIVE YEARS AND MAKE SUCH RECORDS READILY AVAILABLE FOR DISTRICT INSPECTION UPON REQUEST [DISTRICT RULE 4307]"

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 NSR Rule] 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. 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
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

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-1547-995-13 : Apr 8 2009 10:55AM - RICKARDK : Joint Inspection NOT Required

7. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
8. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. 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 semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2; 4307 and 4351, 6.2.1] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4307; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
14. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit
15. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4307]
16. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Emission rates, except during startup and shutdown shall not exceed any of the following: PM₁₀: 0.014 lb/MMBtu, SO_x (as SO₂): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O₂. [District Rules 2201, 2520, 4201, 4301, 4305, 4306, 4307, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
18. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
19. Emission rates shall not exceed any of the following: PM₁₀: 1.7 lb/day, SO_x (as SO₂): 0.2 lb/day, VOC: 0.4 lb/day, NO_x (as NO₂): 4.3 lb/day, or CO: 4.4 lb/day. [District Rule 2201 and 4307] Federally Enforceable Through Title V Permit
20. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee shall maintain records of duration of each start-up and shutdown that exceed two hours per occurrence for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NO_x, 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 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 monitoring has been performed within the last month. [District Rules 2520, 9.4.2, 4305, 4306, and 4307] Federally Enforceable Through Title V Permit
23. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after 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 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. If the unit is tuned for compliance, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307]
25. 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 4305 and 4306] Federally Enforceable Through Title V Permit
26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.5.4 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rules 4307] Federally Enforceable Through Title V Permit
27. If NO_x emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentration corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rules 4305, 4306, and 4307] Federally Enforceable Through Title V Permit
28. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305, 4306, and 4307]
29. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, 4306, and 4307]
30. Vessel covers, inspection hatches, etc. shall be maintained in gas-tight (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. Gas-tight (as defined in District Rule 4623, 5.3.3) shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
35. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
37. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
38. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
39. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
40. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted upon startup and at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
41. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

42. 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. 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
43. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081 and 4307] Federally Enforceable Through Title V Permit
44. 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
45. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit
46. Note: Formerly S-1511-628
47. ATC S-1547-995-12 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]

ATTACHMENT III

Application and Emission Profiles



June 24, 2009

RECEIVED
JUN 25 2009
SJVAPCD
Southern Region

HAND DELIVERED TO BAKERSFIELD OFFICE

Mr. Jim Swaney
San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

Dear Mr. Swaney:

SUBJECT: APPLICATION FOR TITLE V MODIFICATION
IMPLEMENT ATC NUMBER S-1547-995-12 and S-1547-995-13
FOR FACILITY S-1547

Aera Energy LLC (Aera) requests that the Title V permit for Facility S-1547 be modified to implement Authority to Construct number S-1547-995-12 and S-1547-995-13 into the Title V permit. ATC S-1547-995-12 was originally evaluated as part of project number S1084550 and ATC S-1547-995-13 as part of project number S1090345.

As required by condition 47 of ATC S-1547-995-13; Aera is requesting ATC S-1547-995-12 and S-1547-995-13 be implemented concurrently.

I have attached the appropriate application forms, compliance certification form, and a copy of each Authority to Construct.

Thank you for your attention to this matter. Should you have any questions concerning this application, please contact me at (661) 665-5335 or via email at alvalenzuela@aeraenergy.com.

Sincerely,


Adean Valenzuela
Compliance Assurance Specialist

ALV:alv

Attachment

cc: Aera Energy LLC
Robert Beebout, Air Advisor
Perry Harrison, CAS

San Joaquin Valley Air Pollution Control District
San Joaquin Valley
Unified Air Pollution Control District

RECEIVED
JUN 25 2009
SJVAPCD
Southern Region

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: Aera Energy LLC	FACILITY ID: S - 1547
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Aera Energy LLC	
3. Agent to the Owner: N/A	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the emissions units identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the emissions units identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

David C. Shuck
Signature of Responsible Official

6/23/09
Date

David C. Shuck
Name of Responsible Official (please print)

Supervisor
Title of Responsible Official (please print)


Implement ATC number S-1547-995-12 and S-1547-995-13 into the Title V permit.

San Joaquin Valley Air Pollution Control District

APPLICATION FOR TITLE V MODIFICATION:

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JUN 25 2009
SJVAPCD
Southern Region

- ADMINISTRATIVE AMENDMENT
- MINOR MODIFICATION
- SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <u>Aera Energy LLC</u>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>P.O. Box 11164</u> CITY: <u>Bakersfield</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93389-1164</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>Heavy Oil Western Stationary Source</u> CITY: <u>Kern County, CA</u> <u> </u> 1/4 SECTION <u>NW14</u> TOWNSHIP <u>31S</u> RANGE <u>22E</u>	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: <u>Oil & Gas Production</u>	
5. EQUIPMENT FOR WHICH APPLICATION IS MADE (Include Permit Nos.): <u>Implement ATC number S-1547-995-12 into the Title V permit.</u> (Use additional sheets if necessary)	
6. DO YOU REQUEST A CERTIFICATE OF CONFORMITY WITH THIS ACTION? <input type="checkbox"/> YES <input type="checkbox"/> NO	
7. IS THIS APPLICATION SUBMITTED AS A RESULT OF A NOV/NTC? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NOV/NTC No.: _____	
8. SIGNATURE OF APPLICANT/CONTACT PERSON: 	TYPE OR PRINT TITLE OF APPLICANT: <u>Compliance Assurance Specialist</u>
9. TYPE OR PRINT NAME OF APPLICANT/CONTACT: <u>Adean Valenzuela</u>	DATE: <u>6-24-09</u>
10. FAX NUMBER: <u>(661) 665-5202</u>	TELEPHONE NUMBER: <u>(661) 665-5335</u>

FOR APCD USE ONLY: NO

DATE STAMP	FILING FEE RECEIVED: \$ _____ DATE PAID: _____ PROJECT NO.: <u>S-1093738</u> FACILITY REGION & ID: <u>S-1547</u>
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Title V - Minor Mod

San Joaquin Valley Air Pollution Control District


APPLICATION FOR TITLE V MODIFICATION:

RECEIVED

JUN 25 2009

SJVAPCD
Southern Region

- ADMINISTRATIVE AMENDMENT
- MINOR MODIFICATION
- SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <u>Aera Energy LLC</u>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>P.O. Box 11164</u> CITY: <u>Bakersfield</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93389-1164</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>Heavy Oil Western Stationary Source</u> CITY: <u>Kern County, CA</u> <u>1/4 SECTION NW14 TOWNSHIP 31S RANGE 22E</u>	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: <u>Oil & Gas Production</u>	
5. EQUIPMENT FOR WHICH APPLICATION IS MADE (Include Permit Nos.): <u>Implement ATC number S-1547-995-13 into the Title V permit.</u> (Use additional sheets if necessary)	
6. DO YOU REQUEST A CERTIFICATE OF CONFORMITY WITH THIS ACTION? <input type="checkbox"/> YES <input type="checkbox"/> NO	
7. IS THIS APPLICATION SUBMITTED AS A RESULT OF A NOV/NTC? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NOV/NTC No.: _____	
8. SIGNATURE OF APPLICANT/CONTACT PERSON: 	TYPE OR PRINT TITLE OF APPLICANT: <u>Compliance Assurance Specialist</u>
9. TYPE OR PRINT NAME OF APPLICANT/CONTACT: <u>Adeaan Valenzuela</u>	DATE: <u>6-24-09</u>
11. FAX NUMBER: <u>(661) 665-5202</u>	TELEPHONE NUMBER: <u>(661) 665-5335</u>

FOR APCD USE ONLY:

DATE STAMP	FILING FEE RECEIVED: \$ _____ / DATE PAID: _____ PROJECT NO.: <u>S-1093737</u> FACILITY REGION & ID: <u>S-1547</u>
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Title V - Admin Amendment

Emissions Calculations

Daily PE emissions:

$$\text{PE (lb/day)} = \text{Heat input (MMBTU/hr)} \times \text{EF (lb /MMBTU)} \times 24 \text{ (hr/day)}$$

Annual PE emissions:

$$\text{PE (lb/yr)} = \text{Heat input (MMBTU/hr)} \times \text{EF (lb /MMBTU)} \times 8,760 \text{ (hr/yr)}$$

Pre Project Potential to Emit (PE1)							
Pollutant	Heat input	Daily PE			Annual PE		
		Emission Factors	Operation schedule	Daily PE1	Emission Factors	Operation schedule	Annual PE1
	MMBtu/hr	lb/MMBtu	hr/day	lb/day	lb/MMBtu	hr/yr	lb/yr
NO_x	10	0.0360	24	8.6	0.0360	8,760	3,154
SO_x	10	0.00200	24	0.5	0.00200	8,760	175
PM10	10	0.01400	24	3.4	0.01400	8,760	1,226
CO	10	0.0370	24	8.9	0.0370	8,760	3,241
VOC	10	0.0030	24	0.7	0.0030	8,760	263

Post Project Potential to Emit (PE2)							
Pollutant	Heat input	Daily PE			Annual PE		
		Emission Factors	Operation schedule	Daily PE2	Emission Factors	Operation schedule	Annual PE2
	MMBtu/hr	lb/MMBtu	hr/day	lb/day	lb/MMBtu	hr/yr	lb/yr
NO_x	5	0.0360	24	4.3	0.0360	8,760	1,577
SO_x	5	0.00200	24	0.2	0.00200	8,760	88
PM10	5	0.01400	24	1.7	0.01400	8,760	613
CO	5	0.0370	24	4.4	0.0370	8,760	1,621
VOC	5	0.0030	24	0.4	0.0030	8,760	131

ATTACHMENT IV

Previous Title V Operating Permit
(S-1547-995-11)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-995-11

EXPIRATION DATE: 05/31/2007

SECTION: NW14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:

10 MMBTU/HR GAS-FIRED HEATER TREATER WITH TWO 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNERS AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A - ALBERTA SHALE LEASE)

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. 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 semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2; 4305, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit
7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
8. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [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.

9. Unit shall be equipped with a non-resettable fuel flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
12. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, 4801 and Kern County Rules 424 and 425] Federally Enforceable Through Title V Permit
13. Emission rates shall not exceed any of the following: PM10: 3.4 lb/day, SOx (as SO2): 0.5 lb/day, VOC: 0.7 lb/day, NOx (as NO2): 33.6 lb/day or 3154 lb/year, or CO: 8.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
15. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit
16. 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 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 monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after 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 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 4305 and 4306] Federally Enforceable Through Title V Permit
18. 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 4305 and 4306] Federally Enforceable Through Title V Permit
19. 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 3% 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 4305 and 4306] 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.

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. Vessel covers, inspection hatches, etc. shall be maintained in gas-tight (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit
23. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Gas-tight (as defined in District Rule 4623, 5.3.3) shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
28. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by 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. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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30. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) 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 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
32. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
33. 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. 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
34. The following test methods shall be used: 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 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, and 4305, 6.2] Federally Enforceable Through Title V Permit
35. 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. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
36. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit
37. Note: Formerly S-1511-628

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