



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 21 2012

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

Re: **Notice of Minor Title V Permit Modification**
District Facility # S-1543
Project # S-1121741

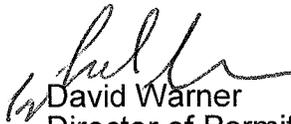
Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Aera Energy, LLC is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct S-1543-5-15 and '-6-16 into the Title V operating permit. These ATCs administratively changed the turbines' emissions factors from lb/hour to lb/MMBtu.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct S-1543-5-15 and '-6-16, emission increases, application, and previous Title V permit. 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 at (661) 392-5500.

Sincerely,



David Warner
Director of Permit Services

Enclosures

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

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

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



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 21 2012

Brent Winn
Aera Energy, LLC
PO Box 11164
Bakersfield, CA 93389-1164

**Re: Notice of Minor Title V Permit Modification
District Facility # S-1543
Project # S-1121741**

Dear Mr. Winn:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct S-1543-5-15 and '6-16 into the Title V operating permit. These ATCs administratively changed the turbines' emissions factors from lb/hour to lb/MMBtu.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct S-1543-5-15 and '6-16, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

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

Sincerely,

David Warner
Director of Permit Services

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TITLE V APPLICATION REVIEW

Minor Modification
Project #: S-1121741

Engineer: Steve Davidson
Date: May 31, 2012

Facility Number: S-1543
Facility Name: Aera energy, LLC
Mailing Address: PO Box 11164
Bakersfield, CA 93389-1164

Reviewed by AP SWPE ADE
JUN 20 2012

Contact Name: Brent Winn
Phone: (661) 665-4363

Responsible Official: G.B. Douglas
Title: Manager of Operations

I. PROPOSAL

Aera Energy, LLC (Aera) is proposing a Title V minor permit modification to incorporate Authorities to Construct (ATC) #S-1543-5-15 and '-6-16 into Aera's Title V permit. ATCs S-1543-5-15 and '-6-16 administratively changed the turbines' emissions factors from lb/hour to lb/MMBtu.

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

The turbines are located at the Section 32 Gas Plant located in the Belridge Oil Field, within the SW/4 of Section 32, Township 28S, Range 21E

III. EQUIPMENT DESCRIPTION

S-1543-5-16: 13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE
ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT
BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK TM
SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION
A

S-1543-6-17: 13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK™ SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION B

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to the Title V permits is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

In project S-1113634, Aera Energy, LLC applied for an Authority to Construct (ATC) permit to administratively change turbines S-1543-5-15 and '6-16 emissions factors from lb/hour to lb/MMBtu.

Condition # on PTO S-1543-5-12	Condition # on Propose PTO S-1543-5-16	Condition is New, Modified, or Removed	Reason for Change from Current PTO
6	6	Modified	Revised emission factors from lb/hour to lb/MMBtu
7	7	Modified	Revised emission factors from lb/hour to lb/MMBtu
24	--	Removed	Removed condition for the facility to keep initial start-up date for 5 years.

Condition # on PTO S-1543-6-12	Condition # on Propose PTO S-1543-6-17	Condition is New, Modified, or Removed	Reason for Change from Current PTO
3, 4, 11, 13, and 18	3, 8, 11, 13, 14, 15, 16, 17, 18, and 23	Modified	Conditions 3, 8, 11, 13, 14, 15, 16, 17, 18, and 23 of S-1543-6-17 were originally approved by ATC S-1543-6-13 and associated Minor Modification S-1543-6-15. These conditions were overwritten in error during title V renewal (S-1543-6-12). They will be placed back on the Permit with this Minor Modification.
7	6	Modified	Revised emission factors from lb/hour to lb/MMBtu
8	7	Modified	Revised emission factors from lb/hour to lb/MMBtu

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

Because these permit revisions meet all the above criteria, this is a Minor 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.

VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permit
- B. Authority to Construct
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit

ATTACHMENT A

Proposed Modified Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1543-5-16

EXPIRATION DATE: 05/31/2016

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

1. Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
2. Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
3. "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
4. Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0205 lb-SO_x/MMBtu, PM₁₀: 0.0918 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0118 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
7. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0279 lb-SO_x/MMBtu, PM₁₀: 0.1287 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0147 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
8. The ammonia (NH₃) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O₂. [District Rule 4102]
9. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H₂S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Compliance with NO_x, CO, and NH₃ emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
13. The following methods shall be used for testing required by this permit: 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 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H₂S and Mercaptans, Fuel gas h_hv - ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
14. The permittee shall monitor and record the stack concentration of NO_x, CO, NH₃ and O₂ at least once during each month in which source testing is not performed. NO_x, CO and O₂ monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH₃ monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
15. If the NO_x, CO or NH₃ concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]
16. All NO_x, CO, O₂ and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NO_x, CO and O₂ analyzer as well as the NH₃ emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703]
17. Ammonia emission readings shall be conducted at the time the NO_x, CO and O₂ readings are taken. The readings shall be converted to ppmvd @ 15% O₂. [District Rule 4703]
18. The permittee shall maintain records of: (1) the date and time of NO_x, CO, NH₃ and O₂ measurements, (2) the O₂ concentration in percent by volume and the measured NO_x, CO and NH₃ concentrations corrected to 15% O₂, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH₃ emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703]
19. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b) and subpart GG; District Rule 4801, 3.1; and Kern County Rule 407] 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. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
21. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
22. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H₂S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
23. If this unit is fired on supplier-certified natural gas, then copies of fuel certifications (or specifications) and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1543-6-17

EXPIRATION DATE: 05/31/2016

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

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

DRAFT

PERMIT UNIT REQUIREMENTS

1. Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
2. Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
3. "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
4. Total gas consumption rate for gas turbine engine/compressor and duct burner shall not exceed 468 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0205 lb-SO_x/MMBtu, PM₁₀: 0.0918 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0118 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
7. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0279 lb-SO_x/MMBtu, PM₁₀: 0.1287 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0147 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
8. The ammonia (NH₃) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O₂. [District Rule 4102]
9. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H₂S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

DRAFT

ATTACHMENT B

Authorities to Construct



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1543-5-15

ISSUANCE DATE: 11/07/2011

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

LOCATION: BELRIDGE GAS PLANT
CA

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK™ SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION A: CHANGE EMISSIONS FACTOR FROM LB/HOUR TO LB/MMBTU

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

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-1543-5-15 : Nov 7 2011 12:23PM -- DAVIDSOS Joint Inspection NOT Required

7. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0205 lb-SO_x/MMBtu, PM₁₀: 0.0918 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0118 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
8. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0279 lb-SO_x/MMBtu, PM₁₀: 0.1287 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0147 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
9. The ammonia (NH₃) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O₂. [District Rule 4102]
10. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H₂S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Compliance with NO_x, CO, and NH₃ emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
14. The following methods shall be used for testing required by this permit: 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 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H₂S and Mercaptans, Fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NO_x, CO, NH₃ and O₂ at least once during each month in which source testing is not performed. NO_x, CO and O₂ monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH₃ monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
16. If the NO_x, CO or NH₃ concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]

CONDITIONS CONTINUE ON NEXT PAGE

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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1543-6-16

ISSUANCE DATE: 11/07/2011

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

LOCATION: BELRIDGE GAS PLANT
CA

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK TM SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION B: CHANGE EMISSIONS FACTOR FROM LB/HOUR TO LB/MMBTU

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

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
S-1543-6-16 Nov 7 2011 12:23PM - DAVIDSOS Joint Inspection NOT Required

6. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
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24. If this unit is fired on supplier-certified natural gas, then copies of fuel certifications (or specifications) and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

ATTACHMENT C

Emissions Increases

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
S-1543-5-16	0	0	0	0	0
S-1543-6-17	0	0	0	0	0
Total	0	0	0	0	0

ATTACHMENT D

Application



RECEIVED
MAY 24 2012
SJVAPCD
Southern Region

May 23, 2012

San Joaquin Valley APCD
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

ATTN: Manager, Permit Services

SUBJECT: S-1543 Title V Minor Modification Application

Aera is requesting that ATC's S-1543-5-15 and S-1543-6-16 be converted to Title V Permit to Operate (PTO). In support of this request, attached are the completed Application for Title V Modification form, Title V Compliance Certification form, and copies of the ATC's.

The subject ATCs revise the permitted emission limits from units of lb/hr to lb/MMBTU.

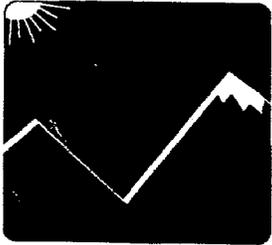
Should you have any questions, please feel free to contact me at (661) 665-4363.

Sincerely,

A handwritten signature in black ink that reads "Brent Winn".

Brent Winn
Environmental Engineer
Belridge Producing Complex

cc: Perry Harrison, Aera Energy LLC



San Joaquin Valley Unified Air Pollution Control District

S-1543-5-16 &
-6-17

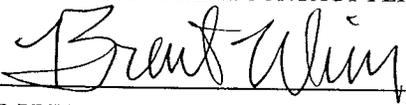
RECEIVED

MAY 24 2012

SJVAPCD
Southern Region

APPLICATION FOR TITLE V MODIFICATION:

- ADMINISTRATIVE AMENDMENT
 MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: Aera Energy LLC	
2. MAILING ADDRESS: STREET/P.O. BOX: P.O. Box 11164 CITY: Bakersfield STATE: CA 9-DIGIT ZIP CODE: 93389-1164	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: Section 32 Gas Plant CITY: _____ SE 1/4 SECTION 32 TOWNSHIP 28S RANGE 21E	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: Natural Gas Processing	
5. EQUIPMENT FOR WHICH APPLICATION IS MADE (Include Permit Nos.): Convert Authorities to Construct #S-1543-5-15 and -6-16 into Title V Permit to Operate. (Modification: Revise emission limits for Solar Turbines from lb/hr to lb/MMBTU) <p style="text-align: right;">(Use additional sheets if necessary)</p>	
6. DO YOU REQUEST A CERTIFICATE OF CONFORMITY WITH THIS ACTION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
7. IS THIS APPLICATION SUBMITTED AS A RESULT OF A NOV/NTC? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO NOV/NTC No.: 5007191	
8. SIGNATURE OF APPLICANT/CONTACT PERSON: 	TYPE OR PRINT TITLE OF APPLICANT: Environmental Engineer
9. TYPE OR PRINT NAME OF APPLICANT/CONTACT: Brent Winn	DATE: 5/23/12
10. FAX NUMBER: (661) 665-7437	TELEPHONE NUMBER: (661) 665-4363

FOR APCD USE ONLY:

DATE STAMP	FILING FEE RECEIVED: \$ _____
	DATE PAID: _____
	PROJECT NO.: S-1121741 FACILITY REGION & ID: S-1543

Title V - Minor Mod

San Joaquin Valley
Unified Air Pollution Control District

RECEIVED
MAY 24 2012
SJVAPCD
Southern Region

TITLE V COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

Implement ATC S-1543-5-15 and '6-16 (Change from lb/hr to lb/MMBTU limits)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Aera Energy LLC	FACILITY ID: S-1543
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 each circle for confirmation):

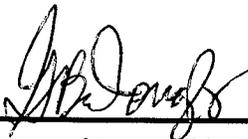
Based on information and belief formed after reasonable inquiry, the emission units identified in this application will continue to comply with the applicable federal requirement(s) which the emission units are in compliance.

Based on information and belief formed after reasonable inquiry, the emission 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:



Signature of Responsible Official

5/23/12

Date

G.B. Douglas

Name of Responsible Official (please print)

Manager of Operations

Title of Responsible Official (please print)



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1543-5-15

ISSUANCE DATE: 11/07/2011

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

LOCATION: BELRIDGE GAS PLANT
CA

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK™ SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION A: CHANGE EMISSIONS FACTOR FROM LB/HOUR TO LB/MMBTU

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. Operation shall include fuel gas piping from inlet scrubber MS-101 and inlet water knockout vessel MS-102, and compressor discharge piping to knockout vessel MS-301. [District Rule 2010, 4.0] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emission sources shall be inspected, repaired, and maintained such that the total stationary source VOC emission rate does not exceed the stationary source limit specified in permit S-1543-4. [District NSR Rule] Federally Enforceable Through Title V Permit
4. "Startup" and "shutdown" of gas turbine engine and/or duct burner, defined in 40CFR 60.2, shall not exceed a time period of two hours for each occurrence. [District Rules 2080, 3.0 and 4703, 3.25] Federally Enforceable Through Title V Permit
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Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
S-1543-5-15 Nov 7 2011 12:23PM -- DAVIDSOS Joint Inspection NOT Required

7. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0205 lb-SO_x/MMBtu, PM₁₀: 0.0918 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0118 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
8. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NO_x (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NO_x/MMBtu, SO_x (as SO₂): 0.0279 lb-SO_x/MMBtu, PM₁₀: 0.1287 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0147 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
9. The ammonia (NH₃) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O₂. [District Rule 4102]
10. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H₂S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Compliance with NO_x, CO, and NH₃ emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
14. The following methods shall be used for testing required by this permit: 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 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H₂S and Mercaptans, Fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NO_x, CO, NH₃ and O₂ at least once during each month in which source testing is not performed. NO_x, CO and O₂ monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH₃ monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
16. If the NO_x, CO or NH₃ concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]

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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1543-6-16

ISSUANCE DATE: 11/07/2011

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

LOCATION: BELRIDGE GAS PLANT
CA

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 13.6 MMBTU/HR GAS-FIRED SOLAR SATURN GAS TURBINE ENGINE/COMPRESSOR WITH GAS FIRED 5.9 MMBTU/HR DUCT BURNER DRIVING GAS COMPRESSOR SERVED BY CATASTAK™ SELECTIVE CATALYST REDUCTION (SCR) SYSTEM - OPERATION B: CHANGE EMISSIONS FACTOR FROM LB/HOUR TO LB/MMBTU

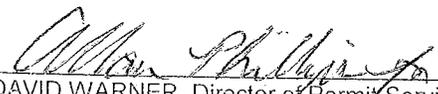
CONDITIONS

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

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-1543-6-16 Nov 7 2011 12:23PM - DAVIDSOS : Joint Inspection NOT Required

6. Total gas consumption rate for gas turbine engine/compressors S-1543-5 and S-1543-6 and waste gas flare S-1543-7 shall not exceed 1,601,176 scf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Gas turbine engine with duct burner on emission rates shall not exceed any of the following: NOx (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NOx/MMBtu, SOx (as SO₂): 0.0205 lb-SOx/MMBtu, PM₁₀: 0.0918 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0118 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
8. Gas turbine engine with duct burner off emission rates shall not exceed any of the following: NOx (as NO₂): 9 ppmv @ 15% O₂ or 0.0332 lb-NOx/MMBtu, SOx (as SO₂): 0.0279 lb-SOx/MMBtu, PM₁₀: 0.1287 lb-PM₁₀/MMBtu, CO: 250 ppmv @ 15% O₂ or 0.5605 lb-CO/MMBtu, or VOC: 0.0147 lb-VOC/MMBtu. [District NSR Rule, District Rule 4703, 5.1.2 and 5.2, and 40 CFR 60.332(c)]
9. The ammonia (NH₃) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd @ 15% O₂. [District Rule 4102]
10. Permittee shall maintain accurate records of weekly fuel gas sulfur content (as H₂S) and shall make such records available for District inspection for five years. Draeger tubes may be utilized to satisfy this monitoring requirement. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Permittee shall maintain accurate daily records of total gas consumed in S-1543-5, '6, and '7, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. Compliance with NOx, CO, and NH₃ emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
14. The following methods shall be used for testing required by this permit: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, Stack gas Oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H₂S and Mercaptans, Fuel gas h_hv - ASTM D1826 or D1945 in conjunction with ASTM D3588, Ammonia slip - BAAQMD method ST-1B. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NOx, CO, NH₃ and O₂ at least once during each month in which source testing is not performed. NOx, CO and O₂ monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH₃ monitoring shall be conducted utilizing gas detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rule 4703]
16. If the NOx, CO or NH₃ concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703]

CONDITIONS CONTINUE ON NEXT PAGE

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

ATTACHMENT E

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1543-5-12

EXPIRATION DATE: 05/31/2016

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1543-6-12

EXPIRATION DATE: 05/31/2016

SECTION: 32 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:

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

PERMIT UNIT REQUIREMENTS

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Compliance with NO_x and CO emission limits shall be demonstrated annually by District witnessed sample collection by independent laboratory. If duct burner is operated intermittently, compliance shall be demonstrated with duct burner both on and off. [District Rule 4703, 6.3.1 and 6.3.3] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081, 5.0, 6.0, and 7.1] Federally Enforceable Through Title V Permit
13. The following methods shall be used for testing required by this permit: 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 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H₂S and Mercaptans, Fuel gas h_hv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081; 40 CFR 60.8(a); and 4703, 6.4] Federally Enforceable Through Title V Permit
14. This unit shall be fired exclusively on natural gas which has a sulfur content of less than or equal to 0.015% by weight (75 ppmv as S). [40 CFR 60.333(b); District Rule 4801, 3.1; and Kern County Rule 407] Federally Enforceable Through Title V Permit
15. If this unit is not fired on natural gas certified by the supplier to have a sulfur content (as S) not exceeding 0.015% by weight, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
16. If this unit is not fired on supplier-certified natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(j)(2)] Federally Enforceable Through Title V Permit
17. If this unit is not fired on supplier-certified natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 4084 or D 3246 or double GC for H₂S and mercaptans. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
18. If this unit is fired on supplier-certified natural gas, then copies of all fuel certifications and natural gas bills shall be maintained on file. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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