



DEC 23 2015

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

**Re: Notice of Final Action - Minor Title V Permit Modification
District Facility # S-1547
Project # 1153881**

Dear Mr. Winn:

The Air Pollution Control Officer has modified the Title V permit for Aera Energy LLC in western Kern County. The project revises PSD-related and other permit conditions for three turbines S-1547-148, '-149, and '-151.

Enclosed is the modified Title V permit. The application and proposal were sent to US EPA Region IX on November 6, 2015. No comments were received following the District's preliminary decision on this project.

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

Sincerely,



Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-148-23

EXPIRATION DATE: 05/31/2016

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

EQUIPMENT DESCRIPTION:

21.45 MW GAS FIRED TURBINE ENGINE COGENERATION FACILITY #1 WITH GENERAL ELECTRIC MODEL LM2500 PE GAS TURBINE AND UNFIRED WASTE HEAT RECOVERY STEAM GENERATOR

PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 19451. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
3. NOx emissions shall not exceed 75 ppmv @ 15% O2 (one-hour rolling average in accordance with 40 CFR 60.13(h)). Compliance with this condition is assured by compliance with NSR limit of 0.011 lb NOx/MMBtu. [40 CFR 60.332(b)] Federally Enforceable Through Title V Permit
4. Except during startup, shutdown, and stack transitions, emission rates (three-hour rolling average) shall not exceed any of the following: NOx: 0.011 lb/MMBtu or 3 ppmv @ 15% O2; and CO: 0.076 lb/MMBtu or 33.9 ppmvd @15% O2. [District Rule 4703, 5.1, 5.2 and 7.2] Federally Enforceable Through Title V Permit
5. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates from the gas turbine engine shall not exceed any of the following: 0.016 lb-PM10/MMBtu, 0.010 lb-SOx/MMBtu, or 0.008 lb-VOC/MMBtu. [District Rule 2201,40 CFR 60.333] Federally Enforceable Through Title V Permit
6. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx daily emission limitation by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 1080] Federally Enforceable Through Title V Permit
7. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NOx/day; 56.5 lb-SOx/day, 90.4 lb-PM10/day, 429.4 lb-CO/day, or 45.2 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The ammonia injection rate shall not exceed 25 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
9. The operator shall monitor the ammonia injection rate during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit
10. Startup shall be defined as the period of time, not to exceed two hours, during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703, 3.29 and 5.3] Federally Enforceable Through Title V Permit
11. Shutdown shall be defined as the period of time, not to exceed two hours, during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26 and 5.3] 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.

12. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that the turbine's operation transitions between the heat recovery steam generator and bypass exhaust stack, when the selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved, the transition period not exceeding two hours, and NO_x emissions not exceeding 15 ppmvd, corrected to 15% O₂, averaged over 2 hours, and the applicable CO compliance limits not being exceeded. [District Rule 4703] Federally Enforceable Through Title V Permit
13. Permittee shall report the following emission exceedances to the District: NO_x emission rate on a three-hour average and daily NO_x emissions during days of gas turbine engine startup/shutdown or stack transition. [District Rule 1080] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit
15. Permittee shall certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(b), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit
16. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
17. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
18. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of: 1) the occurrence and duration of any startup, shutdown, or malfunction in the operation of turbine; 2) Any malfunction of the air pollution control equipment; 3) any periods during which a CEM or other monitoring device is inoperative; 4) Performance testing, evaluations, calibrations, checks, adjustments and maintenance of CEM; 5) NO_x and CO emission measurements. Records shall be retained for 5 years and made available for District inspection upon request. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
20. Permittee shall submit reports of excess emissions for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60.344(j). [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
21. Permittee shall submit a CEMs written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), District Rule 1080, 8.0 and District Rule 2520, 9.6.1& PSD SJ 85-03] Federally Enforceable Through Title V Permit
22. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NO_x and CO, as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] 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.

23. Operator shall notify the District no later than one hour after determining that a breakdown of the CEMs has occurred. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
24. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, the sulfur content of the fuel shall be tested in accordance with 40 CFR 60.344(i). [40 CFR 60.344(i)] Federally Enforceable Through Title V Permit
26. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and 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. [40 CFR 60.335 and District Rules 1081, 4703, 6.4 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
29. Performance testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
30. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transitions shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit
32. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] Federally Enforceable Through Title V Permit
33. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
34. All correspondence as required by this permit shall be forwarded to: SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
35. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transitions, total hours of operation, and quantity and heat input of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
36. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-149-22

EXPIRATION DATE: 05/31/2016

SECTION: 32 TOWNSHIP: 28S RANGE: 21E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 21.45 MW GAS FIRED TURBINE ENGINE COGENERATION FACILITY #2 WITH GENERAL ELECTRIC MODEL LM2500 PE GAS TURBINE, UNFIRED WASTE HEAT RECOVERY STEAM GENERATOR EQUIPPED WITH SCR AND AMMONIA INJECTION, AND BYPASS STACK EQUIPPED WITH SCR AND AMMONIA INJECTION:

PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
3. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates (three-hour rolling average) shall not exceed any of the following: 0.0111 lb-NOx/MMBtu or 3 ppmv-NOx @ 15% O₂, and 0.076 lb-CO/MMBtu or 33.9 ppmvd-CO @15% O₂. [District Rules 2201 and 4703, 5.1.2, 5.2] Federally Enforceable Through Title V Permit
4. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates shall not exceed any of the following: 0.016 lb-PM10/MMBtu, 0.010 lb-SOx/MMBtu, 0.008 lb-VOC/MMBtu. [District Rule 2201, 40 CFR 60.333] Federally Enforceable Through Title V Permit
5. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NOx/day, 56.5 lb-SOx/day, 90.4 lb-PM10/day, 429.4 lb-CO/day, and 45.2 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
7. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that the turbine's operation transitions between the heat recovery steam generator and bypass exhaust stack, when the selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved, the transition period not exceeding two hours, and NOx emissions not exceeding 15 ppmvd, corrected to 15% O₂, averaged over 2 hours, and the applicable CO compliance limits not being exceeded. [District Rule 4703] Federally Enforceable Through Title V Permit
8. On days of gas turbine engine startup/shutdown and/or stack transition, permittee shall demonstrate compliance with NOx daily emission limitation by records of calculations using CEMS data, fuel rate data, and daily hours of operation data. [District Rule 1080] Federally Enforceable Through Title V Permit
9. Permittee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average, and DEL of NOx during days of gas turbine engine startup/shutdown or stack transition. [District Rule 1080] 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. Compliance testing shall be conducted annually as required by the District-approved plan. [District Rule 1081] Federally Enforceable Through Title V Permit
11. 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
12. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit
13. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
15. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. [District Rule 4001 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
16. The owner or operator shall install, certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(a), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit
17. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
18. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
19. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of: 1) the occurrence and duration of any startup, shutdown, or malfunction in the operation of turbine; 2) Any malfunction of the air pollution control equipment; 3) any periods during which a continuous monitoring system or monitoring device is inoperative; 4) Performance testing, evaluations, calibrations, checks, adjustments and maintenance of any continuous emission monitors; 5) NOx and CO Emission measurements. Records shall be retained for 5 years and made available for District inspection upon request. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
21. Permittee shall submit a CEMS written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEMS was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), District Rule 1080, 8.0 and District Rule 2520, 9.3.2 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
22. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NOx and CO, as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] 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.

23. Operator shall notify the District no later than one hour after determining that a breakdown of the CEMs has occurred. The operator shall inform the District of the intent to shut down the CEMS at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
24. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 3.5 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 3.5 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(h) & District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and 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. [40 CFR 60.335 and District Rules 1081, 4703, & PSD SJ 85-03] Federally Enforceable Through Title V Permit
28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
29. Performance testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit
30. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transition shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Source testing to measure ammonia shall be conducted using test method BAAQMD ST-1B. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of the daily calculated ammonia slip measurements. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
33. The operator shall monitor the ammonia injection rate that was established at the time of startup emission testing during CEMS breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit
34. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transition, total hours of operation, and quantity and heat input of fuel used. [District Rules 2520, 9.3.2, 4703, 6.2.6] Federally Enforceable Through Title V Permit
35. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
36. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit
37. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] 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.

38. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
39. All correspondence as required by this permit shall be forwarded to: APCO, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
40. The owner or operator of a stationary gas turbine system 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-151-23

EXPIRATION DATE: 05/31/2016

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

EQUIPMENT DESCRIPTION:

21.45 MW GAS FIRED TURBINE ENGINE COGENERATION FACILITY #3 WITH GENERAL ELECTRIC MODEL LM2500 PE GAS TURBINE, UNFIRED WASTE HEAT RECOVERY STEAM GENERATOR EQUIPPED WITH SCR AND AMMONIA INJECTION, AND BYPASS STACK EQUIPPED WITH SCR AND AMMONIA INJECTION

PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit
2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
3. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates (three-hour rolling average) shall not exceed any of the following: 0.0111 lb-NO_x/MMBtu or 3 ppmv-NO_x @ 15% O₂, and 0.076 lb-CO/MMBtu or 33.9 ppmvd-CO @15% O₂. [District Rule 4703, 5.1.2, 5.2 and District Rule 2201] Federally Enforceable Through Title V Permit
4. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates shall not exceed any of the following: 0.016 lb-PM₁₀/MMBtu, 0.010 lb-SO_x/MMBtu, or 0.008 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NO_x/day, 56.5 lb-SO_x/day, 90.4 lb-PM₁₀/day, 429.4 lb-CO/day, and 45.2 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
7. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that the turbine's operation transitions between the heat recovery steam generator and bypass exhaust stack, when the selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved, the transition period not exceeding two hours, and NO_x emissions not exceeding 15 ppmvd, corrected to 15% O₂, averaged over 2 hours, and the applicable CO compliance limits not being exceeded. [District Rule 4703] Federally Enforceable Through Title V Permit
8. On days of gas turbine engine startup/shutdown and/or stack transition, permittee shall demonstrate compliance with NO_x daily emission limitation by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 1080] Federally Enforceable Through Title V Permit
9. Permittee shall report the following emission exceedances to the District: NO_x emission rate on a three-hour average, and DEL of NO_x during days of gas turbine engine startup/shutdown. [District Rule 1080] Federally Enforceable Through Title V Permit
10. Compliance testing shall be conducted annually as required by the District-approved plan. [District Rule 1081] 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. 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
12. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit
13. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
15. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. [District Rule 4001 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
16. Permittee shall certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(b), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit
17. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
18. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
19. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of: 1) the occurrence and duration of any startup, shutdown, or malfunction in the operation of turbine; 2) Any malfunction of the air pollution control equipment; 3) any periods during which a continuous monitoring system or monitoring device is inoperative; 4) Performance testing, evaluations, calibrations, checks, adjustments and maintenance of any continuous emission monitors; 5) NOx and CO Emission measurements. Records shall be retained for 5 years and made available for District inspection upon request. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
21. Permittee shall submit a CEMs written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), District Rule 1080, 8.0 and District Rule 2520, 9.6.1& PSD SJ 85-03] Federally Enforceable Through Title V Permit
22. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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23. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NOx and CO, as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
24. Operator shall notify the District no later than one hour after the determining that a breakdown of the CEMS has occurred. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
25. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 3.5 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 3.5 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and 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. [40 CFR 60.335(b) and District Rules 1081, 4703, & PSD SJ 85-03] Federally Enforceable Through Title V Permit
28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
29. Performance testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
30. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transition shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit
32. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] Federally Enforceable Through Title V Permit
33. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
34. All correspondence as required by this permit shall be forwarded to: APCO, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
35. Source testing to measure ammonia shall be conducted using test method BAAQMD ST-1B. [District Rules 4102 and 2201] Federally Enforceable Through Title V Permit
36. The permittee shall maintain records of the daily calculated ammonia slip measurements. [District Rules 4102 and 2201] Federally Enforceable Through Title V Permit
37. The operator shall monitor the ammonia injection rate that was established at the time of startup emission testing during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

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38. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transition, total hours of operation, and quantity and heat input of fuel used. [District Rules 2520, 9.4.2, 4703, 6.2.6] Federally Enforceable Through Title V Permit
39. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

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