



October 19, 2023

Mr. Tim Braly Chevron Cogeneration Company PO Box 81438 Bakersfield, CA 93380

Re: Notice of Final Action - Title V Permit Renewal

Facility Number: S-9684 Project Number: S-1223991

Dear Mr. Braly:

The District has issued the Final Renewed Title V Permit for Chevron Cogeneration Company (see enclosure). The preliminary decision for this project was made on August 24, 2023.

The public notice for issuance of the Final Title V Permit will be posted on the District's website (<a href="www.valleyair.org">www.valleyair.org</a>).

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely,

Brian Clements

Director of Permit Services

**Enclosures** 

cc: Courtney Graham, CARB (w/enclosure) via email cc: Laura Yannayon, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

### San Joaquin Valley Air Pollution Control District

**FACILITY:** S-9684-0-1 **EXPIRATION DATE:** 02/29/2028

### **FACILITY-WIDE REQUIREMENTS**

- 1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100; County Rules 110 (San Joaquin); 109 (Merced)] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100; County Rules 110 (San Joaquin); 109 (Merced)] Federally Enforceable Through Title V Permit
- The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rules 2010 and 2020] Federally Enforceable Through Title V Permit
- The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 2080, and 2520] Federally Enforceable Through Title V Permit
- A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520] Federally Enforceable Through Title V Permit
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Location: HEAVY OIL CENTRAL, SECTION 3 TOWNSHIP 29 RANGE 28E, BAKERSFIELD S-9684-0-1: Oct 18 2023 4:10PM - MAKM

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520 and 1100] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1 or Table 2 of District Rule 4601 (4/16/20) for use or sale within the District. [District Rule 4601] Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials subject to Rule 4601 (4/16/20) shall be stored in closed containers when not in use. [District Rule 4601] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (4/16/20). [District Rule 4601] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
- 30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements:Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (San Joaquin), Rule 109 (Merced), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (4/16/20); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
- 41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 42. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
- 43. All permits for facilities S-88, S-511, S-1131, S-9681, and S-9684 are included in Chevron USA Inc's Heavy Oil Central stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
- 44. On December 31, 2002, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-9684-1-2 **EXPIRATION DATE:** 02/29/2028

SECTION: 03 TOWNSHIP: 29S RANGE: 28E

**EQUIPMENT DESCRIPTION:** 

22.3 MW NOMINAL RATING COMBINED CYCLE COGENERATION UNIT A, DIS# 47003-88, INCLUDING GAS-FIRED GE LM-2500-PE TURBINE WITH NOMINAL RATING INPUT OF 240 MMBTU/HR AND SCR FOR NOX CONTROL (EASTRIDGE)

#### PERMIT UNIT REQUIREMENTS

- 1. Operation shall include GE LM-2500-PE gas fired 240 MMBtu/hr (nominal rating) gas turbine engine, 22.3 MW electrical generator, inlet air evaporative cooler, turbine combustor water injectors, gas-fired Coen duct burner rated at 70 MM Btu/hr (nominal rating), Nooter heat recovery steam generator, CO oxidizing catalyst, ammonia injection grid, selective catalytic reduction (SCR) bed, and in-stack continuous emissions monitors (CEMs) for NOx, CO, and O2. [District Rule 2010] Federally Enforceable Through Title V Permit
- 2. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings); District Rule 1081] Federally Enforceable Through Title V Permit
- 5. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 or grab bag analysis by GC-FPD/TCD performed in the laboratory. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
- 6. If the turbine is not fired on PUC-regulated natural gas, 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(b)(2)] Federally Enforceable Through Title V Permit
- 7. The HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
- 8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703] Federally Enforceable Through Title V Permit

- 9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703] Federally Enforceable Through Title V Permit
- 10. 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. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera); District Rule 1080] Federally Enforceable Through Title V Permit
- 11. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEMs that have been installed pursuant to District Rule 1080, and emission measurements. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera); District Rule 1080, 7.3 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
- 12. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520] Federally Enforceable Through Title V Permit
- 13. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703] Federally Enforceable Through Title V Permit
- 14. 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 reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703] Federally Enforceable Through Title V Permit
- 15. Operator shall operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentration. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit
- 16. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [Rule 108 (Kings, Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 17. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 18. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 19. Operators of CEMs installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. 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; C. 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; D. a negative declaration when no excess emissions occurred. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit

- 20. Sulfur content of gas burned shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
- 22. Daily emissions shall not exceed any of the following: PM10: 89.3 lb/day, SOx (as SO2): 29.8 lb/day, NOx (as NO2): 133.9 lb/day, VOC: 245.5 lb/day, or CO: 223.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 24. Ammonia slip shall be calculated as: slip = (a-bxc/1,000,000) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol); and c=change in measured NOx concentration in ppmvd at the actual stack oxygen (O2) concentration or by another method approved by the District. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 25. 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 4001] Federally Enforceable Through Title V Permit
- 26. Transitional operation period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
- 27. Except during periods of gas turbine engine startup/shutdown, and transitional operation period, emission rates (threehour average) shall not exceed any of the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.004 lb/MMBtu; or VOC: 0.033 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. Maximum NOx emission rate (one hour average) shall not exceed the NSPS standard of 105 ppmv dry @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit
- 29. Except during periods of gas turbine engine startup/shutdown, and transitional operation period, emission rates (based on three-hour rolling average) shall not exceed either of the following: NOx (as NO2): 5 ppmv dry @ 15% oxygen (O2); or CO: 13.5 ppmv @ 15% oxygen (O2). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 30. Permittee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average, NSPS NOx emission rate on one hour average, and DEL of NOx during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
- 31. The three-hour average will be compiled from the three most recent one-hour periods, with each one-hour period commencing on the hour. [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. 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 2201] Federally Enforceable Through Title V Permit
- 33. 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
- 34. Continuous emissions monitoring system shall conform to Rule 1080 specifications. [District Rule 1080] Federally Enforceable Through Title V Permit
- 35. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. CEM ppm and lb/hr shall be calculated as a three-hour and a 1 hour average. [District Rules 4001 and 4703] Federally Enforceable Through Title V Permit

S-9684-1-2 : Oct 18 2023 4:10PM -- MAKM

- 36. Annual relative accuracy audits of CEMs shall be conducted by independent laboratory in accordance with EPA guidelines. The District shall be notified of the audit in advance and reports shall be submitted to the District within 60 days of each test. [District Rule 4001] Federally Enforceable Through Title V Permit
- 37. Permittee shall keep accurate records of turbine daily NOx (as NO2) and oxygen (O2) monitors output for a period of five years, and shall make such records readily available for District inspection upon request. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
- 38. Compliance source testing for NOx, CO, and O2 shall be conducted at least once every 12 months under conditions representative of normal operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 39. Compliance source testing shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
- 40. Source test protocol shall be submitted for District approval at least 15 days prior to test date. [District Rule 1081] Federally Enforceable Through Title V Permit
- 41. 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
- 42. The following test methods shall be used: NOx EPA Method 7E or 20 or CARB Method 100; CO EPA Method 10 or 10B or CARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 (front half and back half) or 201A and 202 or CARB Method 5 (front and back half); ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or CARB Method 100. [40 CFR 60.335(a) and District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
- 43. Exhaust stack following last economizer shall be of circular cross-section and shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods, including flow straighteners, if necessary, to minimize turbulence. [District Rule 1081] Federally Enforceable Through Title V Permit
- 44. Permittee shall maintain records of all fuel sulfur content testing performed. [District Rule 2201] Federally Enforceable Through Title V Permit
- 45. Permittee shall maintain daily records of the following: time of start-up(s) and shutdown(s), length and reason for reduced load periods, total hours of operation, and source(s) of and quantity of fuel used. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
- 46. Formerly S-1131-1160.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-9684-2-2 **EXPIRATION DATE:** 02/29/2028

SECTION: 03 TOWNSHIP: 29S RANGE: 28E

**EQUIPMENT DESCRIPTION:** 

22.3 MW NOMINAL RATING COMBINED CYCLE COGENERATION UNIT B, DIS# 47004-88, INCLUDING GAS-FIRED GE LM-2500-PE TURBINE WITH NOMINAL RATING INPUT OF 240 MMBTU/HR AND SCR FOR NOX CONTROL(EASTRIDGE)

#### PERMIT UNIT REQUIREMENTS

- 1. Operation shall include GE LM-2500-PE gas fired 240 MMBtu/hr (nominal rating) gas turbine engine, 22.3 MW electrical generator, inlet air evaporative cooler, turbine combustor water injectors, gas-fired Coen duct burner rated at 70 MM Btu/hr (nominal rating), Nooter heat recovery steam generator, CO oxidizing catalyst, ammonia injection grid, selective catalytic reduction (SCR) bed, and in-stack continuous emissions monitors (CEMs) for NOx, CO, and O2. [District Rule 2010] Federally Enforceable Through Title V Permit
- 2. Unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings); District Rule 1081] Federally Enforceable Through Title V Permit
- 5. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246 or grab bag analysis by GC-FPD/TCD performed in the laboratory. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
- 6. If the turbine is not fired on PUC-regulated natural gas, 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(b)(2)] Federally Enforceable Through Title V Permit
- 7. The HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
- 8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703] Federally Enforceable Through Title V Permit

- 9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703] Federally Enforceable Through Title V Permit
- 10. 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. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera); District Rule 1080] Federally Enforceable Through Title V Permit
- 11. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEMs that have been installed pursuant to District Rule 1080, and emission measurements. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera); District Rule 1080, 7.3 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
- 12. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520] Federally Enforceable Through Title V Permit
- 13. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703] Federally Enforceable Through Title V Permit
- 14. 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 reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703] Federally Enforceable Through Title V Permit
- 15. Operator shall operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, the exhaust gas NOx and O2 concentration. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit
- 16. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [Rule 108 (Kings, Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 17. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 18. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit
- 19. Operators of CEMs installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. 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; C. 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; D. a negative declaration when no excess emissions occurred. [Rule 108 (Kings, Fresno, Merced San Joaquin, Tulare, Kern, and Stanislaus) and Rule 109 (Madera) and District Rule 1080] Federally Enforceable Through Title V Permit

- Sulfur content of gas burned shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
- 22. Daily emissions shall not exceed any of the following: PM10: 89.3 lb/day, SOx (as SO2): 29.8 lb/day, NOx (as NO2): 133.9 lb/day, VOC: 245.5 lb/day, or CO: 223.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 24. Ammonia slip shall be calculated as: slip = (a-bxc/1,000,000) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol); and c=change in measured NOx concentration in ppmvd at the actual stack oxygen (O2) concentration or by another method approved by the District. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 25. 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 4001] Federally Enforceable Through Title V Permit
- 26. Transitional operation period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703] Federally Enforceable Through Title V Permit
- 27. Except during periods of gas turbine engine startup/shutdown, and transitional operation period, emission rates (three-hour average) shall not exceed any of the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.004 lb/MMBtu; or VOC: 0.033 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. Maximum NOx emission rate (one hour average) shall not exceed the NSPS standard of 105 ppmv dry @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit
- 29. Except during periods of gas turbine engine startup/shutdown, and transitional operation period, emission rates (based on three-hour rolling average) shall not exceed either of the following: NOx (as NO2): 5 ppmv dry @ 15% oxygen (O2); or CO: 13.5 ppmv @ 15% oxygen (O2). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 30. Permittee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average, NSPS NOx emission rate on one hour average, and DEL of NOx during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
- 31. The three-hour average will be compiled from the three most recent one-hour periods, with each one-hour period commencing on the hour. [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. 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 2201] Federally Enforceable Through Title V Permit
- 33. 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
- 34. Continuous emissions monitoring system shall conform to Rule 1080 specifications. [District Rule 1080] Federally Enforceable Through Title V Permit
- 35. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. CEM ppm and lb/hr shall be calculated as a three-hour and a 1 hour average. [District Rules 4001 and 4703] Federally Enforceable Through Title V Permit

S-9684-2-2 : Oct 18 2023 4:11PM -- MAKM

- 36. Annual relative accuracy audits of CEMs shall be conducted by independent laboratory in accordance with EPA guidelines. The District shall be notified of the audit in advance and reports shall be submitted to the District within 60 days of each test. [District Rule 4001] Federally Enforceable Through Title V Permit
- 37. Permittee shall keep accurate records of turbine daily NOx (as NO2) and oxygen (O2) monitors output for a period of five years, and shall make such records readily available for District inspection upon request. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
- 38. Compliance source testing for NOx, CO, and O2 shall be conducted at least once every 12 months under conditions representative of normal operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 39. Compliance source testing shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
- 40. Source test protocol shall be submitted for District approval at least 15 days prior to test date. [District Rule 1081] Federally Enforceable Through Title V Permit
- 41. 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
- 42. The following test methods shall be used: NOx EPA Method 7E or 20 or CARB Method 100; CO EPA Method 10 or 10B or CARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 (front half and back half) or 201A and 202 or CARB Method 5 (front and back half); ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or CARB Method 100. [40 CFR 60.335(a) and District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
- 43. Exhaust stack following last economizer shall be of circular cross-section and shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods, including flow straighteners, if necessary, to minimize turbulence. [District Rule 1081] Federally Enforceable Through Title V Permit
- 44. Permittee shall maintain records of all fuel sulfur content testing performed. [District Rule 2201] Federally Enforceable Through Title V Permit
- 45. Permittee shall maintain daily records of the following: time of start-up(s) and shutdown(s), length and reason for reduced load periods, total hours of operation, and source(s) of and quantity of fuel used. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
- 46. Formerly S-1131-1161.