



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue Victorville, CA92392-2310
760.245.1661 -- 800.635.4617 -- FAX760.245.2022

AUTHORITY TO CONSTRUCT

B008457

If construction is not completed by the expiration date of this permit, it may be renewed for one additional year upon payment of applicable fees. Any additional extension will require the written approval of the Air Pollution Control Officer. This Authority to Construct may serve as a temporary Permit to Operate provided the APCO is given prior notice of intent to operate and the Permit to Operate is not specifically denied.

EXPIRES LAST DAY OF: NOVEMBER 2024

OWNER OF OPERATOR (Co.#86)

MAGTFTC MCAGCC
Box 788110, Bldg 1418
Twentynine Palms, CA92278-8110

EQUIPMENT LOCATION (Fac.#3252)

USMC AGCC - USMC Utilities
Box 788110, Bldg. 1451
Twentynine Palms, CA92278

Description:

GAS TURBINE GENERATOR (BLDG 1577) consisting of: Solar Turbine, Taurus 70, Model T-10301S, 76.1 MM BTU/hr, dual-fuel, fired on natural gas with diesel fuel as back up, rated at 7520 KW. The turbine was replaced with identical unit in December 2020 per manufacture recommendations.

CONDITIONS:

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
[District Rule 204]
2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants.
[District Rule 204]
3. This unit shall be fired on pipeline quality natural gas, with diesel fuel as a back-up. This unit may be fired on diesel fuel with a sulfur content of 0.0015% or less for testing or during curtailment of natural gas supply only. Testing on diesel fuel is limited to 25 hours per calendar year.
[District Rule 431]
4. This equipment is subject to the federal NSPS codified at 40 CFR 60, Subparts A (General Provisions) and GG (Standards of

Fee Schedule: 2 (e) Rating: 76100000Btu SIC: 9711 SCC: 20100201 Location/UTM(Km): 587E/3788N

This permit does not authorize the emission of air contaminants in excess of those allowed by law, including Division 26 of the Health and Safety Code of the State of California and the Rules and Regulations of the District. This permit cannot be construed as permission to violate existing laws, ordinances, statutes or regulations of this or other governmental agencies. This permit must be renewed by the expiration date above. If billing for renewal fee required by Rule 301(c) is not received by expiration date above, please contact the District.

MAGTFTC MCAGCC
Box 788110, Building 1418
Twentynine Palms, CA92278-8110

By: **COPY**
Brad Poiriez
Air Pollution Control Officer

Performance for Stationary Gas Turbines). Compliance with all applicable provisions of this regulation is required.

5. Emissions from this equipment shall not exceed the following emission limits at any firing rate, except for CO, NO_x and VOC during periods of startup, shutdown, microgrid testing, and malfunction (malfunction may include low load and load transient periods), and SCR bypass:

- a. Hourly rates, computed every 15 minutes, verified by CEMS and compliance tests:
 - i. NO_x as NO₂ - 0.91 lb/hr (based on 3 ppmvd corrected to 15% oxygen and averaged over three hours)
 - b. Hourly rates, verified by compliance tests or other compliance methods in the case of SO_x:
 - i. CO - 4.64 lb/hr (based on 25 ppmvd corrected to 15% oxygen and averaged over three hours)
 - ii. Ammonia Slip - 5 ppmvd (corrected to 15% oxygen and averaged over three hours)
 - iii. VOC as CH₄ - 0.53 lb/hr (based on 5 ppmvd corrected to 15% oxygen)
 - iv. SO_x as SO₂ - 0.28 lb/hr (corrected to 15% oxygen)
 - v. PM₁₀ - 3.19 lb/hr
- [BACT; NSPS 40 CFR Subpart GG]

6. Emissions of NO_x from this equipment must not exceed 7.61 lb/hour during the following periods, verified by CEMS;

- a. When selective catalytic reduction (SCR) is bypassed for purposes of compliance testing and tuning of permit units B0009555, B011795, and M011794, not to exceed 40 hours per 12 month period.
 - b. During periods of startup. Startup shall be defined as the period beginning with ignition and lasting until the equipment has reached operating permit limits.
 - c. Following a major maintenance cycle as determined by the manufacture.
 - d. Microgrid testing, defined as disconnection from the utility for purposes of testing the facility's internal power generation system.
- [District Rule 1303]

7. Emissions from this unit to the atmosphere may not exceed the following emission limits, based on a rolling 12 month summary:

- a. NO_x - 3.8 tons/year, verified by CEMS
 - b. CO - 19 tons/year, verified by compliance tests and hours of operation
 - c. VOC as CH₄ - 2 tons/year, verified by compliance tests and hours of operation in mode
 - d. SO_x as SO₂ - 1 tons/year, verified by fuel sulfur content and fuel use data
 - e. PM₁₀ - 13.3 tons/year, verified by compliance tests and hours of operation
- [District Rule 1303]

8. At all times the owner/operator (o/o) must operate this equipment with the selective catalytic NO_x reduction system (SCR) with valid District permit C008456 with the following exceptions;

- a. During compliance testing of boilers operating under District permit B0009555, B011795, and M011794, the o/o may bypass the selective catalytic NO_x reduction system (C008456) to enable adequate heat load during compliance testing/tune-up of the boilers.
 - b. Following a major maintenance cycle to allow the gas turbine to be tuned to minimize emissions of criteria pollutants in accordance with the recommendations of the equipment manufacturer.
- [District Rule 1303]

9. Emissions of NO_x, oxygen and ammonia slip shall be monitored using a Continuous Emissions Monitoring System (CEMS) or alternate method in the case of ammonia slip. Turbine fuel consumption shall be monitored using a continuous monitoring system. Stack gas flow rate shall be monitored using either a Continuous Emission Rate Monitoring System (CERMS) or a stack flow rate calculation method. The operator shall install, calibrate, maintain and operate these monitoring systems in accordance with the monitoring provisions of 40 CFR Part 60 Subpart GG, District Rule 218, and a District-approved monitoring plan. These monitors shall be installed prior to initial equipment startup. Ninety (90) days prior to installation of monitoring equipment the operator shall submit a monitoring plan for District review and approval.

[District Rule 1303]

10. The o/o shall conduct all required compliance/certification tests in accordance with a District-approved test plan. Thirty (30) days prior to the compliance/certification tests the operator shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the tests so that an observer may be present. A written report with the results of such compliance/certification tests shall be submitted to the District within forty-five (45) days after testing.

[District Rule 1303]

11. The o/o shall perform the following compliance tests at least as often as once every three years (commencing with the initial compliance test) in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District not later than six weeks prior to the expiration date of this permit. The following compliance tests are required:

- a. NOx as NO2 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Methods 19 and 20).
- b. VOC as CH4 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Methods 25A and 18).
- c. SOx as SO2 in ppmvd at 15% oxygen and lb/hr.
- d. CO in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Method 10).
- e. PM10 in mg/m3 at 15% oxygen and lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method 5).
- f. Flue gas flow rate in dscfm.
- g. Ammonia slip in ppmvd at 15% oxygen.

[District Rule 1303]

12. The o/o shall, at least as often as once every six years (commencing with the initial compliance test), include the following supplemental source tests in the periodic compliance testing:

- (a) Characterization of startup VOC emissions.

[District Rule 1303]

13. Continuous monitoring systems shall meet the following acceptability testing requirements from 40 CFR 60 Appendix B:

- a. For NOx, Performance Specification 2.
- b. For oxygen, Performance Specification 3.
- c. For stack gas flow rate (if present), Performance Specification 6.
- d. For ammonia, a District-approved procedure that is to be submitted by the o/o.

District Rule 1303; 40 CFR Part 60 Subpart GG]

14. The o/o shall submit to the APCO and USEPA Region IX the following information for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year this permit is in effect. Each January 30 submittal shall include a summary of the reported information for the previous year. This information shall be maintained on site for a minimum of five (5) years and shall be provided to District personnel on request:

- a. Operating parameters of emission control equipment, including but not limited to NOx emission rate and ammonia slip.
- b. Total plant operation time (hours), number of startups and/or SCR bypass, and hours in startup and/or SCR bypass.
- c. Date and time of the beginning and end of each startup and/or SCR bypass.
- d. Average plant operation schedule (hours per day, days per week, weeks per year).
- e. All continuous emissions data reduced and reported in accordance with the District-approved CEMS protocol.
- f. Maximum hourly, total quarterly, and total calendar year emissions of NOx, CO, PM10, VOC and SOx (including calculation protocol).
- g. Fuel sulfur content (natural gas sulfur content reports from the natural gas supplier(s)).
- h. A log of all excess emissions, including the information regarding malfunctions/breakdowns required by Rule 430.
- i. Any permanent changes made in the plant process or production which would affect air pollutant emissions, and indicate when changes were made.
- j. Any maintenance to any pollutant control system (recorded on an as-performed basis).

[District Rule 204]

15. This equipment shall exhaust through a stack at a minimum height of 36 feet. The o/o shall provide sampling ports and platforms necessary to perform source tests required to verify compliance with District rules, regulations and permit conditions. The location of these ports and platforms shall be subject to District approval.

16. In each calendar year, the actual emissions of this facility shall be less than 20 tons NOx, 20 tons VOC, and 12 tons PM10 (SM80 Emission Rate). O/o shall demonstrate compliance with this limit on an annual basis through the submission of the Comprehensive Emission Inventory Report (CEIR) to the District. Copies of the CEIR(s) must be kept and maintained on-site for at least five years and presented to District personnel upon request. [District Rule 221]