



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

PERMIT TO OPERATE

B011636

Operation under this permit must be conducted in compliance with all information included with the initial application, initial permit condition, and conditions contained herein. The equipment must be maintained and kept in good operating condition at all times. This Permit to Operate or copy must be posted on or within 8 meters of equipment. If a copy is posted, the original must be maintained on site, available for inspection at all times.

EXPIRES LAST DAY OF: OCTOBER 2025

OWNER OF OPERATOR (Co. #31)

Southern California Gas Co. - MD
9400 Oakdale Avenue
Chatsworth, CA 91313

EQUIPMENT LOCATION (Fac. #65)

SCG - Newberry Springs
3 Miles So. of I40 on Fort Cady Road
Newberry Springs, CA 92365

Description:

NATURAL GAS MICROTURBINE GENERATORS (10 UNITS) consisting of: Capstone Model C200 Microturbine electrical generators, each rated at 200 kW output, with a heat input of 2.4 MMBtu/hr and operating with an integral oxidation catalyst. Equipment elevation is 1895 feet above sea level. Each Stack is 32 feet in height and 1-foot in diameter. Stack gas exhausts at 1373 cfm at a temperature of 560 deg F and at a velocity of 1748 fpm.

CONDITIONS:

1. This equipment, and any associated air pollution control device(s), shall be installed, operated, and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles in a manner consistent with good air pollution control practice for minimizing emissions. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

[District Rule 1302(C)(2)(a)]

2. This equipment shall be exclusively fueled with pipeline quality natural gas with a sulfur content not exceeding 1.0 grains per 100 dscf on a rolling twelve month average basis. Compliance with this limit shall be demonstrated by providing evidence of a contract, tariff sheet or other approved documentation that shows that the fuel meets the definition of pipeline quality gas.

[District Rule 1302(C)(2)(a)]

3. Owner/operator shall maintain an operations log (in either electronic or hardcopy format) for this equipment, which contains at a minimum the following information. Log must be maintained on-site for a minimum of five (5) years and presented to District, State, or Federal personnel upon request.

Fee Schedule: 2 (e)

Rating: 24000000 Btu

SIC: 4922

SCC: 20100201

Location/UTM(Km): 537E/3849N

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.

Southern California Gas Co. - MD
PO Box 2300, SC 9314
Chatsworth, CA 91313-2300

By: **COPY**

Brad Poiriez

Air Pollution Control Officer

- a. 12 month rolling summary of emissions;
- b. Monthly fuel consumption summary using individual fuel rates (in cubic feet);
- c. Annual average heating value of fuel (in accordance with District Rule 1159 or equivalent);
- d. Daily hours operated at each low, mid, and high operating load range;
- e. Record(s) of all maintenance, malfunction, repairs (e.g. corrective action); and
- f. Results of most recent compliance test.

[District Rule 1302(C)(2)(a)]

4. Emissions from each microturbine shall not exceed the following emission limits, verified by compliance test and measured at high load (HHV of 1020 Btu/Scf). Note: Source testing of SOx and PM-10 is only required during the initial source tests, thereafter annual source test shall only be required for NOx, VOC, and CO.

NOx: 0.08 lb/hr (based on 9 ppmvd @ 15% oxygen)
 VOC: 0.022 lb/hr (based on 7 ppmv @ 15% oxygen)
 CO: 0.054 lb/hr (based on 10 ppmvd @ 15% oxygen)
 SOx: 0.0027 lb/MMBtu (@ 15% oxygen; verified by initial source test)
 PM10: 0.0056 lb/MMBtu (@ 15% oxygen; verified by initial source test)
 [Regulation XIII-BACT requirement in the case of NOx, VOC, and CO]

5. The owner/operator must submit a compliance/source test protocol at least thirty (30) days prior to the compliance/source test date. The owner/operator must conduct all required compliance/source tests in accordance with a District-approved test protocol. The owner/operator must notify the District a minimum of ten (10) days prior to the compliance/source test date so that an observer may be present. The final compliance/source test results must be submitted to the District within forty-five (45) days of completion of the test. All compliance/source test notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov
 [District Rule 1302(C)(2)(a)]

6. The owner/operator shall conduct an initial compliance test with 180 days of date of initial operation, and annually thereafter. Once the owner/operator has demonstrated compliance for two consecutive tests, the owner/operator may reduce the frequency of subsequent compliance tests to once every three years. Should the results of any subsequent triennial compliance test indicate the equipment is not in compliance with the permitted emission rates, the owner/operator must resume annual test. The compliance test must be carried out in accordance with a District-approved test plan and MDAQMD Compliance Test Procedural Manual. Only one microturbine unit is required to be tested during each compliance test. Each subsequent compliance test report shall be submitted to the District no later than 45 days after completion of the test. The following compliance tests are required and must be conducted in each low, mid, and high operating load range:

- a. NOx as NO2 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Method 7E).
- b. VOC as CH4 in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Methods 25A and 18).
- c. CO in ppmvd at 15% oxygen and lb/hr (measured per USEPA Reference Method 10).
- d. SOx as SO2 in ppmvd at 15% oxygen and lb/hr. (Initial test only)
- e. PM10 in lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method 5 or equivalent. Front half and back half required). (Initial test only)
- f. Flue gas flow rate in dscfm (measured per USEPA Method 19).

Note that ranges for low, mid and high load are defined herein:

LOW (0 - 43.1 kW)
 MID (43.1 - 107.5 kW)
 HIGH (107.5+kW)

These values are allotted a +/-10 kW variation
 [District Rule 1302(C)(2)(a)]

7.Total emissions from this equipment shall not exceed the following in any consecutive 12 month period. Emissions shall be calculated using the most recent source test result and operational data (duration operated in each low, mid, high load range).

NOx: 69446.2 lb/yr (based on five units at low load)

VOC: 376.7 lb/yr (based on all units at mid load)

CO: 10,886.7 lb/yr (based on five units at mid load)

SOx: 588.9 lb/yr

PM10: 1214.6 lb/yr

All emissions based on operation of all units at high load unless otherwise specified.

[District Rule 1302(C)(2)(a)]

8.Owner/operator must continuously monitor the duration each unit operates at each low, mid, and high load using a data acquisition and handling system approved by the District. Each low, mid, and high operating load range that the unit is operating in must be recorded at least once every 15 minutes during operation. Collected operating data shall be paired with emission rate (from most recent source test) and the emissions calculated on an hourly and annual basis. Data shall be quality assured and reported in accordance with District approved protocol and any malfunctions must be reported in accordance with District Rule 218.

[District Rule 1302(C)(2)(a)]

9.Owner/operator must install, operate, and maintain in calibration;

a. non-resettable totalizing fuel meters for each unit; and

b. continuous measurement and recording of elapsed time of operation.

[District Rule 1302(C)(2)(a)]

10.A facility wide Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.

[District Rule 107(b), H&S Code 39607 & 44341-44342, and 40 CFR 51, Subpart A]