



## 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

B002153

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 2024**

#### **OWNER OF OPERATOR (Co.#31)**

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

#### **EQUIPMENT LOCATION (Fac.#68)**

SCG - South Needles  
on Hwy 95, 11 miles South of  
Needles, CA 92363

#### **Description:**

SPARK-IGNITED IC ENGINE GENERATOR, UNIT #3 consisting of: A Four Stroke Rich Burn (4SRB) Engine Manufactured prior to 2006 and located at a HAP Major Source; a Natural Gas Fired Caterpillar Internal Combustion Engine, model G399, S/N 4900 1543 "Genset 03". This engine, which is one of three, is turbo-charged and is installed with a non-selective catalytic reduction system for NOx and CH2O (formaldehyde) reduction. This engine is capable of generating 500 kW(e) at 733 bhp and at a nominal heat input rate of heat input rate of 5.63 MMBtu/h. Engine is subject to 40 CFR Part 63, Subpart ZZZZ as it was manufactured/reconstructed prior to 2006, is located at a HAP Major Source, is a 4SRB Engine, has rated BHP greater than 500, and has reduced CO/CH2O by at least 75%. Stack height is 16.42 feet and stack diameter is 0.83 feet. Stack temperature is 1000 deg F at 1190 cfm, and at a velocity of 2200 fpm. Equipment Elevation is 1352 feet above sea level. // Emission Type // Est.at Max Load // Unit CO // 12.240 // gm/Bhp-hr NOx // 7.916 // gm/bhp-hr PM10 // 0.033 // gm/bhp-hr PM2.5 // 0.033 // gm/bhp-hr SOx // 0.0021 // gm/bhp-hr VOC // 0.103 // gm/bhp-hr

#### **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.  
[40 CFR 63.6605(b) and District Rule 1302(C)(2)(a)]

Fee Schedule: 1 (c)

Rating: 733 bhp

SIC: 4922

SCC: 20100202

Location/UTM(Km):  
719E/3842N

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

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. This equipment is subject to these permit conditions and the requirements of 40 CFR Part 63 Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. In the event of conflict between these requirements, the more stringent requirements shall govern.

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

4. Owner/operator must meet the following emission limitation, except during periods of startup. During periods of startup o/o must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

a. Reduce formaldehyde emissions by 76 percent or more.

[40 CFR 63.6640(b)]

5. Owner/operator shall conduct testing when a catalyst is changed to reestablish the values of the operating parameters.

[40 CFR 63.6640(b)]

6. Owner/operator shall use the methods and procedures specified in 40 CFR 63.6620 (Table 4) for all performance tests intended to demonstrate compliance with the formaldehyde emission limit.

7. Owner/operator must install, operate, and maintain a continuous parameter monitoring system (CPMS) to continuously monitor the following operating limitations;

a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 60 percent generator load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and

b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 degrees F and less than or equal to 1250 degrees F. [40 CFR 63.6600(a) Table 1b]

Other parameters may be monitored instead as a part of a District-approved continuous parameter monitoring protocol. Major alternatives to monitoring under 40 CFR 63.8(f), and as defined in 40 CFR 63.90, must first obtain U.S. EPA approval.

[40 CFR 63.6635, 63.6625, 63.6670(c)(3)]

8. A thermocouple with a minimum range of 750 to 1250 degrees F and a minimum tolerance of 5 degrees F or 1 percent of the measurement range, whichever is larger must be located in the exhaust prior to the catalyst. The thermocouple must be calibrated according to the procedures set forth in the District approved Continuous Process Monitoring System (CPMS) Plan for compliance with Subpart ZZZZ.

[40 CFR 63.6625(b)(1)]

9. Owner/operator must monitor and record catalyst temperatures according to the following;

One data point every 15 minutes, with rolling four one-hour averages. Four hour averages are to be reviewed and any temperature deviation alarmed. Alarms must be logged for each occurrence (deviation) and resolution noted. Deviations to be in accordance with Part 70 requirements to District and USEPA.

[40 CFR 63.6625(b)(1)]

10. The owner/operator shall maintain an operations log (in electronic or hardcopy format) for this unit current and on-site (or at a central location) for a minimum of five (5) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

a. Calendar year operation in terms of fuel consumption (in cubic feet or Btus) and total hours.

b. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in subpart 63.10(b)(2)(xiv).

c. Records of the occurrence and duration of each malfunction of operation and the actions taken to correct such malfunction of operation. [40 CFR 63.6655(a)]

d. Records of performance tests and performance evaluations as required in subpart 63.10(b)(2)(viii).

e. Records of all required maintenance performed on the air pollution control and monitoring equipment.

- f. Records of actions taken during periods of malfunction to minimize emissions in accordance with subpart 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. Records of each instance in which the emission and operating limitations are not met.  
[40 CFR 63.6640 (b)]
11. The owner/operator shall submit to the MDAQMD, within 45 days of the last date of on-site compliance testing and data collection, the results of all compliance tests. Notifications, protocols, and test results must be submitted to [reporting@mdaqmd.ca.gov](mailto:reporting@mdaqmd.ca.gov)  
[District Rule 1302(C)(2)(a)]
12. The pretest protocol and final report shall conform to the guidelines delineated in the MDAQMD "Source Test Procedural Manual," dated February 1988 and as amended.  
[District Rule 1302(C)(2)(a)]
13. Restart after a major engine overhaul, prior to operations with catalyst shall not exceed 700 hours and shall be as continuous at near maximum loading as is practicable or in accordance with supplier's recommendations (reference Engelhard Industries West Inc. letter "Subject: Influence of IC Engine Break-In Period on Catalyst Life" dated March 21, 1998, transmitted to the MDAQMD by C.O. Burke, Southern California Gas Company). A log of the restart period shall be kept by o/o which shows times of operations and loading.  
[District Rule 1302(C)(2)(a)]
14. Owner/operator shall maintain a log of all inspections, repairs and maintenance on this equipment and submit it to District, state or federal personnel upon request. The log shall be kept for a minimum of five (5) years. For missing records of fuel usage, the substitute data value shall be the best available estimate of the parameter, based on all available process data (e.g., load, operating hours, etc.). The procedure used to estimate the substitute data value shall be documented and records of the procedure used for such estimates shall be maintained.  
[40 CFR 98.35(b)(2), District Rule 1302 (C)(2)(a)]
15. Owner/operator shall maintain all operating logs and records, current and on-site, for a minimum of 5 years from the date the records were created to substantiate compliance with all conditions of this Federal Operating Permit and shall be provided to District, state or federal personnel upon request. These Records shall include a copy of the PUC quality natural gas fuel specifications used to fuel engines.  
[District Rule 1302(C)(2)(a)]
16. The owner/operator shall submit to the MDAQMD several different notifications and reports, including initial notification, notification of performance test, notification of compliance status (including performance test results), and semiannual compliance reports, including deviation and malfunction reports if applicable. These notifications must be sent to [reporting@mdaqmd.ca.gov](mailto:reporting@mdaqmd.ca.gov)  
[40 CFR Part 63 Subpart ZZZZ]
17. The owner/operator shall submit Semiannual reports in accordance with 40 CFR 63 Subpart 63.6650:
- a. Company name and address
  - b. Statement of responsible official
  - c. Date of report and beginning and ending dates of reporting period
  - d. If you had a malfunction during the reporting period, the information in 63.6650(c)(4).
  - e. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period.
  - f. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in 63.6650(d).
  - g. Semiannual Compliance reports shall be postmarked or delivered, no later than July 31, and no later than January 31 or as otherwise allowed in your Title V permit.
18. 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]