MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

INACTIVE

B009050

Inactive type Permit has no description information.

EXPIRES LAST DAY OF: DECEMBER 2004

OWNER OF OPERATOR (Co.#3254)

5E SVM Operations, LLC
13200 Main Street
Trona, CA 93562

EQUIPMENT LOCATION (Fac.#7)

SVM - West End Plant
80201 Trona Road
Trona, CA 93562

Description:
COMBUSTION TURBINE COGENERATION POWER BLOCK consisting of: Natural gas fueled General Electric Frame 5NT combustion turbine cogeneration power block producing approximately 26 MW gross (plus 5.8 MW from the steam generator). This power block consists of a combustion turbine, a combustion turbine generator, a heat recovery steam generator (HRSG) with a duct burner, and a steam generator.

EQUIPMENT

Capacity	Equipment Description
293	General Electric Model 5001P-NT Serial 295453 Combustion Turbine, rated 293 MMBtu/hr
0	Turbine Generator Serial 335X847 (26 MW(e) gross)
0	General Electric Model 139719 Serial 10434 HRSG
90	HRSG Duct Burner, rated 90 MMBtu/hr
0	General Electric Model DEX 112755022 Serial 155022 Steam Turbine

CONDITIONS:

1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Fee Schedule: 2 (e) Rating: 383000000 Btu SIC: 1474 SCC: 20200203 Location/UTM(Km): 464E/3951N

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.

5E SVM Operations, LLC
P.O. Box 367
Trona, CA 93592-0367

By: **COPY**
Brad Poiriez
Executive Director

UNOFFICIAL

2. This equipment shall be exclusively fueled with pipeline quality natural gas with a sulfur content not exceeding 5 ppm on a rolling twelve month average basis, and shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

3. This equipment is subject to the federal NSPS codified at 40 CFR Part 60, Subparts A (General Provisions) and GG (Standards of Performance for Stationary Gas Turbines). Compliance with all applicable provisions of these regulations is required.

4. Emissions from this equipment (including its associated duct burner) shall not exceed the following emission limits at any firing rate, except for CO, NOx, and VOC during periods of startup, shutdown and malfunction:
a. Hourly rate, computed every 15 minutes, verified by CEMS and annual compliance tests:
i. NOx as NO2 - 2.82 lb/hr (based on 2.0 ppmvd corrected to 15% oxygen and averaged over three hours)
ii. CO - 3.44 lb/hr (based on 4.0 ppmvd corrected to 15% oxygen and averaged over 24 hours)
b. Hourly rates, verified by annual compliance tests or other compliance methods in the case of SOx:
i. VOC as CH4 - 0.49 lb/hr (based on 1 ppmvd corrected to 15% oxygen)
ii. SOx as SO2 - 0.31 lb/hr (based on 5 ppmvd fuel sulfur)
iii. PM10 - 4.1 lb/hr

5. Emissions of CO and NOx from this equipment shall only exceed the limits contained in Condition 4 during startup and shutdown periods. Startup is defined as the period beginning with ignition and lasting until the equipment has reached operating permit limits. Shutdown is defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased.

6. Emissions from the equipment with District permits B000339 and B009050 (combined) shall not exceed the following emission limits, based on a rolling 12 month summary:
a. NOx - 31.3 tons/year, verified by CEMS
b. CO - 16.1 tons/year, verified by CEMS
c. VOC as CH4 - 2.2 tons/year, verified by compliance tests and hours of operation in mode
d. SOx as SO2 - 1.4 tons/year, verified by fuel sulfur content and fuel use data
e. PM10 - 19.5 tons/year, verified by compliance tests and hours of operation

7. Particulate emissions from this equipment shall not exceed an opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.

8. This equipment shall exhaust through a stack at a minimum height of 155 feet.

9. The owner/operator (o/o) shall not operate this equipment after the initial commissioning period without the selective catalytic NOx reduction system with valid District permit C009051 installed and fully functional.

10. The o/o shall provide stack 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.

11. Emissions of NOx, CO, oxygen and ammonia slip shall be monitored using a Continuous Emissions Monitoring System (CEMS). 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) meeting the requirements of 40 CFR Part 75 Appendix A or a stack flow rate calculation method. The o/o shall install, calibrate, maintain, and operate these monitoring systems according to a District-approved monitoring plan and MDAQMD Rule 218, and they shall be installed prior to initial equipment startup. Prior to installation the operator shall obtain a District-approved monitoring plan.

12. 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 o/o 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.

13. The o/o shall perform the following annual compliance tests in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no 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. Opacity (measured per USEPA Reference Method 9).
h. Ammonia slip in ppmvd at 15% oxygen.

14. 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 CO, Performance Specification 4.
d. For stack gas flow rate, Performance Specification 6 (if CERMS is installed).
e. For ammonia, a District approved procedure that is to be submitted by the o/o.
f. For stack gas flow rate (without CERMS), a District-approved procedure that is to be submitted by the o/o.

15. 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 ammonia injection rate, NOx emission rate and ammonia slip.
b. Total equipment operation time (hours), number of startups, hours in startup, and hours in shutdown period.
c. Date and time of the beginning and end of each startup and shutdown period.
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 (monthly laboratory analyses, monthly natural gas sulfur content reports from the natural gas supplier(s), or the results of a custom fuel monitoring schedule approved by USEPA for compliance with the fuel monitoring provisions of 40 CFR 60 Subpart GG).
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 air pollutant control system (recorded on an as-performed basis).

16. The o/o must surrender to the District sufficient valid Emission Reduction Credits for this equipment before the start of construction of any part of the project for which this equipment is intended to be used. In accordance with Regulation XIII the operator shall obtain 1.75 tons of VOC, 1.1 tons of SOx, and 7.39 tons of PM10 offsets.

17. During an initial commissioning period of no more than 120 days, commencing with the first firing of fuel in this equipment, NOx, CO, VOC and ammonia concentration limits shall not apply. The o/o shall minimize emissions of NOx, CO, VOC and ammonia to the maximum extent possible during the initial commissioning period.

18. Within 60 days after achieving the maximum firing rate at which the facility will be operated, but not later than 180 days after initial startup, the operator shall perform an initial compliance test. This test shall demonstrate that this equipment is capable of operation at 100% load in compliance with the emission limits in Condition 4 above.

19. The initial compliance test shall include tests for the following. The results of the initial compliance test shall be used to prepare a supplemental health risk analysis:
a. Formaldehyde;
b. Certification of CEMS and CERMS (or stack gas flow calculation method) at 100% load, startup modes and shutdown mode;
c. Characterization of startup VOC emissions; and,
d. Characterization of shutdown VOC emissions.

20. Test