



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

C014056

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: JUNE 2026

OWNER OF OPERATOR (Co.#2635)

SoCal Biomethane, LLC
705 Palomar Airport Road, Suite 200
Carlsbad, CA 92011

EQUIPMENT LOCATION (Fac.#4059)

SoCal Biomethane, LLC - VVWRA
20109 Shay Road
Victorville, CA 92394

Description:

THERMAL OXIDIZER consisting of: Regeneration waste gas VOC and odor control equipment (thermal oxidizer) manufactured by Ship and Shore, Model SSE-3K-DFTO, Serial No. 2020-766-0421, equipped with one 2.0 MM Btu/hr burner with an operating temperature of 1500 degrees Fahrenheit and an expected gas flow rate of 600 dscfm, having an expected minimum control efficiency 99%. The THERMAL OXIDIZER is associated with a biomethane upgrading system consisting of the following equipment listed in the table below.

EQUIPMENT

Capacity	Equipment Description
0	Booster Blower (pressurizes biogas)
0	Aftercooler (cools biogas)
0	Two Hydrogen Sulfide Adsorption Units (arranged in lead/lag configuration)
0	Packed Bed Ammonia Scrubber
0	Two Temperature Swing Adsorption Units (arranged in lead/lag configuration)
0	Compressor
0	CO2 removal system consisting of a 3-stage membrane system

CONDITIONS:

Fee Schedule: 7 (h)

Rating: 1 device

SIC: 2813

SCC: 50100789

Location/UTM(Km):
467E/3830N

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.

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By: **COPY**
Eldon Heaston
Air Pollution Control Officer

1. This equipment must be installed, operated, and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles to produce the minimum emissions of contaminants. Unless otherwise noted, this equipment must also be operated in accordance with all data and specifications submitted with the application for this permit.
[District Rule 204]

2. O/o shall demonstrate compliance with District Rule 431 according to the following;
 - (a) Shall not burn sewage digester gas containing sulfur compounds, calculated as H₂S, in excess of 40 ppmv measured daily or 40 and 500 ppmv, measured monthly and each 15-minute period, respectively; or
 - (b) Demonstrate to the satisfaction of the APCO (or his/her designee) that this facility (equipment) is exempt from the provisions of District Rule 431 in accordance with section (l)(12) or (14) of the rule.
[District Rule 431]

3. Biogas received from the WWTP digesters shall be either diverted to the flare(s) under permit(s) C008356, C010756, C013981, and C013982, or IC engines under permit(s) B011922 or B011923, or processed by this biogas treatment system.
[District Rule 204]

4. VOC laden gas from the temperature swing adsorption units can only be burned off in the thermal oxidizer.
[District Rule 1303]

5. The thermal oxidizer shall not operate more than 3650 hours per year nor burn more than 7.2 MMscf/yr.
[District Rule 1303]

6. A temperature monitoring device (thermocouple) shall be installed and maintained in the reaction chamber(s). The thermocouple will be replaced annually (or upon failure).
[District Rule 204]

7. At all times when in use the reaction chamber temperature must be maintained at a minimum of 1500 degrees Fahrenheit.
[District Rule 204]

8. The owner/operator shall maintain an operations log 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) Monthly regeneration hours of the TSA and the total sulfur content of the gas burned.
 - (b) Weekly concentration of H₂S (in ppmv) in gas burned or records demonstrating that the equipment is exempt from Rule 431.
 - (c) Daily record of the thermal oxidizer operating temperature.
 - (d) Records of all maintenance, repairs, replacements and/or gas conditioning equipment change-outs, and malfunctions.
[District Rules 431; 1303]

9. Biomethane shall be continuously monitored at the injection point to the natural gas grid to ensure pipeline quality natural gas is produced.
[District Rule 204]

10. Owner/operator shall install and maintain a non-resettable totalizing fuel meter on the natural gas feed to the thermal oxidizer.
[District Rule 1303]

11. Pursuant to District Rule 431, the Owner/operator shall prepare and submit an annual report no later than 60 days following the end of the reporting year. The report shall consist of the amount of any gaseous fuel consumed monthly, the applicable hourly, daily or monthly average sulfur content as determined by the Continuous Monitor or approved alternative monitoring method as specified in subsections (D)(1)(a), (D)(1)(b), or (D)(1)(c) of this Rule, and total SOX emissions calculated as SO₂. This condition is applicable only if the operation is not exempt from Rule 431 based on Condition 2(b) above.
[District Rule 431]

12. 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]