



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

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

AUTHORITY TO CONSTRUCT

C015035

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: APRIL 2025

OWNER OF OPERATOR (Co. #3025)

StratosFuel, Inc.
P.O. Box 1446
Riverside, CA 92502

EQUIPMENT LOCATION (Fac. #4460)

Mojave River Hydrogen Facility
TBD
Victorville, CA 92394

Description:

SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM, STEAM METHANE REFORMER UNIT consisting of: One Selective Catalytic Reduction (SCR) system, utilizing aqueous ammonia injection and manufactured by Boustead International Heaters (BIH); model no. TBD, serial no. TBD. Stack height of 98.5 ft, diameter 4.0 ft, with an exhaust temperature of approximately 298 degrees Fahrenheit and a flow rate of approximately 11,354 scfm.

CONDITIONS:

1. This equipment shall be installed, operated and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application(s) for this permit.

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

2. This SCR must be operated concurrently with the Steam Methane Reformer (SMR) permitted under B015033 when the SMR is in operation.

[District Rule 1303(A) - BACT]

3. The owner/operator must install and maintain a measurement device to accurately indicate the temperature at the inlet of the SCR catalyst bed. The measurement device or gauge shall continuously measure the temperature, be accurate to within plus or minus 5 percent, and be calibrated every 12 months. Ammonia shall only be injected whenever the selective catalytic reduction system has reached or exceeded the temperature range prescribed by either the manufacturer or source testing results except for periods of

Fee Schedule: 7 (h)

Rating: 1 device

SIC: 2813

SCC: 30107101

Location/UTM(Km): 466E/3827N

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**
Brad Poiriez
Air Pollution Control Officer

equipment malfunction. The owner/operator must maintain annual records of calibrations and monthly records of the temperature. These records must be kept for at least five (5) years, and made available to District, state, or federal personnel upon request.
[District Rule 1303(A) - BACT]

4. The owner/operator must install and maintain a measurement device to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column. The measurement device or gauge must continuously measure the differential pressure, be accurate within plus or minus 5 percent, and be calibrated every 12 months. The pressure drop across the SCR bed must not exceed the range prescribed by either the manufacturer or source testing results. The owner/operator must maintain annual records of calibrations and monthly records of the the differential pressure. These records must be kept for at least five (5) years, and made available to District, state, or federal personnel upon request.
[District Rule 1303(A) - BACT]

5. The owner/operator must install and maintain a measurement device to accurately indicate the flow rate of the total hourly throughput of the injected ammonia. The measurement device or gauge shall continuously measure the hourly throughput, be accurate to within plus or minus 5 percent, and be calibrated once every 12 months. The ammonia injection rate shall not exceed the rate prescribed by either the manufacturer or source testing results. The owner/operator must maintain annual records of calibrations and monthly ammonia injection records of the total flow rate and hourly average throughput. These records must be kept for at least five (5) years, and made available to District, state, or federal personnel upon request.
[District Rule 1303(A) - BACT]

6. The owner/operator must install, calibrate, maintain and operate the gauges and meters used to monitor the operation of this SCR according to a District-approved SCR Monitoring and Quality Assurance Plan. No later than forty-five (45) days prior to installation of this equipment, the owner/operator must submit a SCR Monitoring and Quality Assurance Plan for District review and approval. The SCR Monitoring and Quality Assurance Plan must include the preliminary SCR operating parameters that maintain emissions within the specified limits contained within the SMR permit under MDAQMD permit no. B015033, including but not limited to: operating temperature range, pressure drop range, ammonia injection rate range, and ammonia content of the aqueous ammonia solution. These parameters must be established by the manufacturer and/or compliance testing and are subject to District approval. Final SCR operating parameters must be submitted in a revised SCR Monitoring and Quality Assurance Plan no later than (6) months after the initial compliance test. The District-approved SCR Monitoring and Quality Assurance Plan must be maintained with the recordkeeping for this equipment and made available to District, state, or federal personnel upon request.
[District Rule 1303(A) - BACT]

7. The entire facility shall not emit any of the Regulated Pollutants listed below in excess of the following limits in any consecutive 12 month period to remain below the USEPA's Synthetic Minor - 80% (SM-80) threshold:

- a. Oxides of Nitrogen (NO_x): 20 tons per consecutive twelve (12) month period, measured as NO₂;
- b. Oxides of Sulfur (SO_x): 20 tons per consecutive twelve (12) month period;
- c. Volatile Organic Compounds (VOC): 20 tons per consecutive twelve (12) month period;
- d. Carbon Monoxide (CO): 80 tons per consecutive twelve (12) month period;
- e. Hydrogen Sulfide (H₂S): 8 tons per consecutive twelve (12) month period;
- f. Lead (Pb): 0.48 tons per consecutive twelve (12) month period;
- g. Particulate Matter 10 microns and less (PM₁₀): 14.5 tons per consecutive twelve (12) month period;
- h. Any single Hazardous Air Pollutant (HAP): 8 tons per consecutive twelve (12) month period; and,
- i. All HAPs combined: 20 tons per consecutive twelve (12) month period.

Compliance with these limits shall be demonstrated through the submission of a facility-wide Comprehensive Emission Inventory (CEI) for all emitted Regulated Air Pollutants. Exceedance of these emission limits may trigger offsets, BACT, National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, and/or require submission of a Title V permit application.
[District Rules 1302 and 1303]

8. 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]