



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

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

RENEWAL

C013593

Renewal type Permit has no description information.

EXPIRES LAST DAY OF: JUNE 2025

OWNER OF OPERATOR (Co.#2500)

5E Boron Americas, LLC
9329 Mariposa Rd. Suite # 210
Hesperia, CA 92344

EQUIPMENT LOCATION (Fac.#3893)

5E Boron Americas, LLC
27555 Hector Road
Newberry Springs, CA 92365

Description:

CAUSTIC SCRUBBER #1, HCL ABSORBERS consisting of: A custom made countercurrent style packed bed scrubber with a 72 inch packing material height and a cross sectional area of 27.8 square feet. The aqueous NaOH scrubbant has a flow rate of 50 gallons per minute from one nozzle operating at TBD psig at a nominal pH of 10.0. The HCl emission rate is expected to be no more than 50 mg/m³.

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 for this permit. [District Rule 1302]

2. A pH meter shall be installed to indicate the pH of the NaOH scrubbant. Furthermore, the pH shall be maintained between 9.0 and 11.0 and the meter shall be calibrated at least monthly in accordance with the manufacturer's procedures. [District Rules 1302 and 1303]

3. Whenever one or two of the four HCl Absorption Towers described in District Permits B013344 - B013347 is operating, either this caustic scrubber or the caustic scrubber described in District Permit C013594, or both, shall be fully functional and operating. Whenever three or four HCl Absorption Towers described in District Permits B013344 - B013347 are operating, then both this scrubber and the caustic scrubber described in District Permit C013594 must be fully functional and operating. [District Rules 1302, 1303 and 1320]

4. The owner/operator shall conduct an initial source test of this scrubber to determine the HCl emissions to the atmosphere. This test

Fee Schedule: 7 (h) Rating: 1 device SIC: 1479 SCC: 30101101 Location/UTM(Km): 552E/3846N

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

shall be conducted within 60 days of reaching full production rate but shall not exceed 180 days from initial startup. The source test shall be conducted while two of the HCl Absorption Towers described in District Permits B013344 - B013347 are operating at a minimum of 90% of maximum capacity and both vented to this scrubber. The owner/operator must submit a source test protocol at least thirty (30) days prior to the scheduled source test date for District review and approval, and the owner/operator must conduct all required tests in accordance with the District-approved test protocol. The owner/operator must notify the District a minimum of ten (10) days prior to the first day of testing so that an observer may be present. The final source test results must be submitted to the District within forty-five (45) days of completion of the test. All compliance/certification test notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov [District Rules 204, 1302 and 1303]

5. This scrubber shall emit no more than 0.37 lbs of HCl in any one hour as determined by the initial source test required in Condition #4. Furthermore, this scrubber shall achieve a control efficiency of no less than 97% as also determined by the initial source test required in Condition #4. [District Rules 1302 and 1320]

6. Emissions from the entire facility shall not exceed the following limits:

- a. Oxides of Nitrogen (NO_x): 24 tons per consecutive twelve month period, measured as NO₂;
- b. Oxides of Sulfur (SO_x): 24 tons per consecutive twelve month period;
- c. Volatile Organic Compounds (VOC): 24 tons per consecutive twelve month period;
- d. Carbon Monoxide (CO): 95 tons per consecutive twelve month period;
- e. Hydrogen Sulfide (H₂S): 9.5 tons per consecutive twelve month period;
- f. Lead (Pb): 0.5 tons per consecutive twelve month period;
- g. Particulate Matter 10 microns and less (PM₁₀): 14.5 tons per consecutive twelve month period;
- h. Any single Hazardous Air Pollutant (HAP): 9.5 tons per consecutive twelve month period; and
- i. All HAPs combined: 24 tons per consecutive twelve month period.

Compliance shall be demonstrated to the District through the submission of a District approved Comprehensive Emission Inventory Report (CEI) or other equivalent and District approved method. [District Rules 1302 and 1320]

7. In the event of a malfunction of any emissions related part of this scrubber, the associated HCl Absorption Towers must be shut down as soon as safely possible and shall not be restarted until all malfunctions have been corrected. Equipment breakdowns shall be reported to the District in accordance with District Rule 430. [District Rules 430 and 1302]

8. The owner/operator must maintain an operations log for this equipment. This log shall be maintained current, kept for a total of five (5) years and be provided to authorized personnel upon request. The log shall contain the following at a minimum:

- a. Daily scrubbant pH readings.
- b. Dates and results of all monthly pH meter calibrations as required by Condition #2; and
- c. Times and durations of malfunctions, a description of each malfunction, and the corrective action taken for each malfunction.

[District Rules 401 and 1302]

9. 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]