



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

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

RENEWAL

B013345

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:

HCL ABSORPTION TOWER #2, SOP PROCESS consisting of: A custom built HCL absorption tower used to dissolve the HCL/Cl₂ gases exiting the Mannheim Furnaces described in District Permits B013333 - B013336, producing an aqueous HCL solution with a nominal concentration of 30-33% w/w. This system consists of a sulfuric acid wash tower, a graphite absorber, and a Fiber Reinforced Plastic absorber. Gases exiting this absorber are fed into one of the two NaOH-based caustic scrubbers described in District Permits C013593 and C013594 to remove the remaining HCL gases. When operated at the nominal SOP throughput of 80,000 tons per year, all four absorption towers have a combined HCL production rate of approximately 33.6 tons per year.

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 Rules 204 and 1303]

2. The actual HCL concentration, which will vary between 30% and 33%, and flow rates may be adjusted as operationally necessary and are not limited by permit condition. [District Rules 204 and 1302]

3. 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;

Fee Schedule: 1 (b)

Rating: 80bhp

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

- 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]

4.The owner/operator shall inspect the system for aqueous HCl leaks weekly. A leak shall be defined as more than one drop per minute of liquid capable of turning a wetted piece of pH test paper to a color indicating a pH of 1 or less. All leak inspections shall be recorded and all leaks shall be repaired within one week of discovery.
[District Rules 1302 and 1320]

5.One of the four HCl absorption towers described in District Permits B013344 - B013347 must be fully functional and properly operating for each operating Mannheim Furnace described in District Permits B013333 - B013336.
[District Rules 1302 and 1320]

6.No more than two HCl absorption towers can be vented to one of the two SOP Scrubbers described in District Permits C013593 - C013594 at one time: If three or four HCl absorption towers are in operation, then both scrubbers must be used. Furthermore, the SOP Scrubber(s) in use must be fully functional and properly operating.
[District Rules 1302, 1303, and 1320]

7.The owner/operator shall maintain a current, on-site (at a central location if necessary) operations log for this equipment for five (5) years, which shall be provided to District, State or Federal personnel upon request. This log shall include, as a minimum, the following information:
a. Monthly amount of HCl absorbed, in either lbs HCl or in gallons and concentration of HCl;
b. Rolling consecutive twelve-month amount of HCl absorbed, in either lbs HCl or in gallons and concentration of HCl; and
c. Results of all tests, inspections (including the weekly HCl leak inspections discussed in Condition #4), repairs, and maintenance actions, as occurring.
[District Rule 1302]

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]