



# 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

B013318

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: JUNE 2026**

### 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 INJECTION & RECOVERY consisting of: A high pressure pump (250 psig) injecting an aqueous HCl solution with a nominal concentration of 2.7 percent into underground injection well sites. The injection wells will vary from approximately 1300 to approximately 1500 feet below ground and each well area will have between 22 and 42 individual injection wells. Pump flow rate is approximately 25 gallons per minute at 250 psig: Actual flow rates will be based on wellhead injection pressure to ensure fluid balance within the ore body and is not restricted by permit condition. The HCl solution dissolves borate- and CaCl<sub>2</sub>-rich material to produce the Pregnant Leach Solution (PLS). Air lift pumps bring the PLS to the surface for processing. Total power required for this system is 100 bhp.

### EQUIPMENT

Capacity	Equipment Description
0	01-TK-21 Tank, Knockout Pot, 3500 gallon capacity
0	Tank, Well Tank #1, 9000 gallon capacity
0	Tank, Well Tank #2, 9000 gallon capacity
0	Tank, Well Tank #3, 9000 gallon capacity
0	Tank, Well Tank #4, 9000 gallon capacity
0.75	01-PM-03 Pump, Well Scrubber
50	01-PM-04 Pump, Booster
7.5	01-PM-21 Pump, Knockout

Fee Schedule: 1 (b)

Rating: 58.25 bhp

SIC: 1479

SCC: 305000

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.

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

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

## 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. This equipment shall not be operated unless it is vented to the properly functioning scrubbers under valid district permits C015247 and C015326.  
[District Rule 1320]
  
3. The actual HCl concentration, injection rate, recovery rate, and well depth may be adjusted as operationally necessary and are not limited by permit condition.  
[District Rules 204 and 1302]
  
4. The owner/operator shall inspect each operating wellhead for aqueous HCl leaks on a weekly basis. 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. The owner/operator shall maintain a current, on-site (at a central location if necessary) operations log for this equipment for three (3) 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 aqueous HCl pumped into all wellheads, in lbs HCl;
  - b. Rolling consecutive twelve-month aqueous HCl pumped into all wellheads, in lbs HCl; and
  - c. Monthly HCl emissions as calculated based on the the most recent approved source test of the control device C015247 in pounds;
  - d. Rolling consecutive twelve-month HCl loss as calculated based on the most recent approved source test of the control device C015247, in pounds; and
  - e. Results of all tests, inspections, repairs, and maintenance actions, as occurring.  
[District Rule 1302]
  
6. Operation of this equipment shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.  
[District Rule 402]
  
7. The owner/operator must contact the MDAQMD PRIOR to adding any new equipment or modifying any existing equipment which requires submission of a MDAQMD permit application and may require a Health Risk Assessment.  
[District Rule 1320]
  
8. This equipment may not be operated within 500 meters (1640 feet) of any receptor. Such operation will require the submittal of an application for a revised permit to operate and may require a Health Risk Assessment.  
[District Rule 1320]
  
9. Emissions from the entire facility shall be less than the following limits:
  - a. Oxides of Nitrogen (NOx): 20 tons per consecutive twelve month period, measured as NO<sub>2</sub>;
  - b. Oxides of Sulfur (SOx): 80 tons per consecutive twelve month period;
  - c. Volatile Organic Compounds (VOC): 20 tons per consecutive twelve month period;
  - d. Carbon Monoxide (CO): 80 tons per consecutive twelve month period;
  - e. Particulate Matter 10 microns and less (PM<sub>10</sub>): 12 tons per consecutive twelve month period;
  - f. Any single Hazardous Air Pollutant (HAP): 8 tons per consecutive twelve month period; and
  - g. All HAPs combined: 20 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]

10. 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), Health & Safety Code 39607 & 44341-44342, 17 CCR 93400 et seq., and 40 CFR 51, Subpart A]