



**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**

T011873

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: FEBRUARY 2027**

**OWNER OF OPERATOR (Co. #2349)**

MP Mine Operations LLC  
 67750 Bailey Road  
 Mountain Pass, CA 92366

**EQUIPMENT LOCATION (Fac. #364)**

Mountain Pass Mine  
 67750 Bailey Road  
 Mountain Pass, CA 92366

**Description:**

BRINE RECOVERY EQUIPMENT consisting of:

**EQUIPMENT**

Capacity	Equipment Description
0	E80-P229A Carbonate Pump A
0	E80-P229B Carbonate Pump B
0	E80-P235A Caustic Soda Pump A
0	E80-P235B Caustic Soda Pump B
1.1	E80-TK230 15% Sodium Carbonate Tank (11,000 gallon)
1.1	E80-TK229 15% Sodium Carbonate Tank (11,000 gallon)
2	E80-TK235 20% Caustic Soda Tank (20,000 gallon)
2	E80-TK236 20% Caustic Soda Tank (20,000 gallon)
0	E80-P151A Na2SO4 Feed Pump A
0	E80-P151B Na2SO4 Feed Pump B
0	E80-P171A NASH Feed Pump A
0	E80-P171B NASH Feed Pump B

Fee Schedule: 5 (c)

Rating: 813800 gallons

SIC: 1099

SCC: 30599999

Location/UTM(Km):  
 634E/3926N

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.

MP Mine Operations LLC  
 1700 S. Pavilion Center Drive, 8th Floor  
 Las Vegas, NV 89135

By: **COPY**  
**Brad Poiriez**  
 Executive Director

Capacity	Equipment Description
0	E80-P161A CaCl2 Feed Pump A
0	E80-P161B CaCl2 Feed Pump B
0	E80-P181A HCl Booster Pump A
0	E80-P181B HCl Booster Pump B
0	E80-TK151A Na2SO4 Tote Tank A (250 gallon)
0	E80-TK151B Na2SO4 Tote Tank B (250 gallon)
0	E80-TK161A CaCl2 Tote Tank A (250 gallon)
0	E80-TK161B CaCl2 Tote Tank B (250 gallon)
0	E80-MX101 Brine Static Mixer
0	E80-P201 Sump Pump
0	E80-P101A Brine Surge Tank Pump A
0	E80-P101B Brine Surge Tank Pump B
25	E80-TK101 Surge Tank (250,000 gallon)
25	E80-TK102 Surge Tank (250,000 gallon)
0	E80-P103 Brine Temp Surge Tank Pump
1.2	E80-TK103A Temp Brine Surge Tank A (12,000 gallon)
1.2	E80-TK103B Temp Brine Surge Tank B (12,000 gallon)
1.2	E80-TK103C Temp Brine Surge Tank C (12,000 gallon)
1.2	E80-TK103D Temp Brine Surge Tank D (12,000 gallon)
1.2	E80-TK103E Temp Brine Surge Tank E (12,000 gallon)
1.2	E80-TK103F Temp Brine Surge Tank F (12,000 gallon)
1.2	E80-TK103G Temp Brine Surge Tank G (12,000 gallon)
1.2	E80-TK103H Temp Brine Surge Tank H (12,000 gallon)
1.2	E80-TK103J Temp Brine Surge Tank J (12,000 gallon)
0	E80-AG247 Reaction/Precip 1 Tank #1 Agitator
0	E80-AG248 Reaction/Precip 1 Tank #2 Agitator
0	E80-MX216 Static Mixer
0	E80-P228 Sump Pump
4.1	E80-RE226 Reaction/Precip 1 Tank #1 (41,000 gallon)
3.7	E80-RE227 Reaction/Precip 1 Tank #2 (37,000 gallon)
0	E80-CL251R Brine Clarifier #1 Rake Drive
0	E80-CL251L Brine Clarifier #1 Rake Lift
0	E80-P251A Brine Clarifier #1 Underflow Pump A
0	E80-P251B Brine Clarifier #1 Underflow Pump B
1	E80-TK251 Mix Tank (10,000 gallon)
1	E80-CL251 Brine Clarifier #1 (10,000 gallon)
0	E80-CL252R Brine Clarifier #2 Rake Drive
0	E80-CL252L Brine Clarifier #2 Rake Lift
0	E80-P252A Brine Clarifier #2 Underflow Pump A
0	E80-P252B Brine Clarifier #2 Underflow Pump B
0	E80-P256A Brine Slurry Recycle Pump A
0	E80-P256B Brine Slurry Recycle Pump A
0	E80-P255A Brine Slurry Pump A
0	E80-P255B Brine Slurry Pump B
0	E80-AG255 Brine Slurry Agitator
1	E80-TK252 Mix Tank (10,000 gallon)
1	E80-CL252 Brine Clarifier #2 (10,000 gallon)
1	E80-TK255 Brine Slurry Tank
0	E80-P301A Clarified Brine Pump A
0	E80-P301B Clarified Brine Pump B

Capacity	Equipment Description
1	E80-TK301 Clarified Brine Tank (9,900 gallon)
1	E80-TK302 Clarified Brine Tank (9,900 gallon)
0	E80-P270A Filtrate Pump 1
0	E80-P270B Filtrate Pump 2
0	E80-CV261 Press #1 Belt Conveyor
0	E80-FI161 Brine Mud Press #1 (337 gallon)
0	E80-FI261H Brine Press #1 Hydraulic Unit
0	E80-P265 Squeeze Pump
0	E80-TK270 Filtrate Receiver (400 gallon)
0	E80-TK265 Squeeze Tank (350 gallon)
0	E80-FI262 Brine Mud Press #2 (337 gallon)
0	E80-FI262H Brine Press #2 Hydraulic Unit
0	E80-CV262 Belt Conveyor
0	E80-CV263 Belt Conveyor
0	E80-FI692A Brine Polishing Filter A
0	E80-FI692B Brine Polishing Filter B
0	E80-FI692C Brine Polishing Filter C
0	E80-FI692D Brine Polishing Filter D
0	F88-HX100 Brine Cooler
1	J88-TK401 Tank Located at 204 Pad (10,000 gallon)
1	J88-TK402 Tank Located at 204 Pad (10,000 gallon)
0	E80-CV-260 Brine Press Transfer Conveyor
0.8	E80-TK-311 Wet Cake Tank (8240 gallon)
0	E80-AG-311 Wet Cake Tank Agitator
0	E80-P-311A Wet Cake Pump (air operated diaphragm)
0	E80-P-311B Wet Cake Pump (air operated diaphragm)
0	E80-TK-312 Sluice Water Tank
0	E80-P-312A Sluice Water Pump
0	E80-P-312B Sluice Water Pump
0	E80-P-260 Sump Pump - Filter Press Containment
0	E80-P-262 Sump Pump - Leaf Filter Containment
0	E80-FI-310 Pressure Leaf Filter #1
0.7	E80-TK-310 Pre-Coat Tank (7060 gallon)
0	E80-AG-310 Pre-Coat Tank Agitator
0	E80-CV-310 Pre-Coat Skid Metering Screw Conveyor
0	E80-P-310A Pre-Coat Pump
0	E80-P-310B Pre-Coat Pump

**CONDITIONS:**

1. Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.
3. No tank shall discharge hydrogen chloride at more than a maximum of 800 ppm v/v, per District Rule 406. To demonstrate compliance with this limit, the owner/operator, o/o, shall demonstrate that the HCl concentration in the liquid shall remain at or below an HCl

concentration of 6% in Surge Tank #1 E80-TK101 and Surge Tank #2 E80-TK102.

The concentration shall be estimated weekly according to a district approved protocol, with results logged. The log shall be maintained current, kept on-site for a minimum of 5 years, and provided to District personnel on request.

4. This equipment shall not be operated with a VOC concentration above 150 ppm v/v in any tank in strict accordance with the engineering design. To demonstrate compliance with this condition, the owner/operator, o/o, shall conduct weekly VOC sampling in the Surge Tanks (E80-TK101, E80-TK102) using a handheld PID (protocol approved 8/23/13).

The concentration shall be estimated weekly according to a district approved protocol, with results logged. The log shall be maintained current, kept on-site for a minimum of 5 years, and provided to District personnel on request.

5. Mountain Pass Mine Voluntary Emissions Limit/Synthetic Minor Hazardous Air Pollutant Limits - emission shall be less than the following limits:

(a) VOC: 25.0 tons/year [District Rule 1303(B)]

(b) CO: 100.0 tons/year [District Rule 1303(B)]

(c) SOX: 25.0 tons/year [District Rule 1303(B)]

(d) PM10: 46.0 tons/year [District Rule 1305(A)(2)(b)(ii)(b)(i)]

(e) NOx: 42.0 tons/year [District Rule 1305(A)(2)(b)(ii)(b)(ii)]

(f) Hazardous Air Pollutants (HAPs) 10.0 tons per year for any single HAP/ 25.0 tons per year for any combination of HAPs [District Rule 1201]

Monitoring, Periodic Monitoring & Recordkeeping Conditions. This facility shall demonstrate compliance with the specific facilitywide emission limits through the submission of an approved CEIP and CEIR. The CEIP and CEIR shall be based on actual emissions as determined by source test of the equipment or on district approved methods and emissions factors only. Generic or default emission factors shall not be used without approval from the District. Emissions will be calculated separately for each emissions source on a monthly basis and used to calculate a 12 month rolling annual total. All emissions sources including all permit units will be summed on a monthly basis and used to calculate the 12 month rolling annual total. The permit unit and facilitywide monthly emissions, 12 month rolling annual emissions total, and most recent approved CEIR shall be kept on site and provided to District personnel upon request.

6. 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]