



**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**

B011513

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:**

CERIUM REMOVAL TRAIN #1 consisting of:

**EQUIPMENT**

Capacity	Equipment Description
60	F10-AG111 Cerium Agitator #1
60	F10-AG121 Cerium Agitator #2
60	F10-AG211 Cerium Agitator #3
60	F10-AG221 Cerium Agitator #4
5	F10-P111 Cerium pH Pump #1
5	F10-P121 Cerium pH Pump #2
5	F10-P211 Cerium pH Pump #3
5	F10-P221 Cerium pH Pump #4
5	F10-P171 Caustic Pump #1
5	F10-P172 Caustic Pump #2
5	F10-P271 Caustic Pump #3
5	F10-P272 Caustic Pump #4
10	F10-AG141 Cerium Feed Tank Agitator
10	F10-AG241 Cerium Feed Tank Agitator

Fee Schedule: 1 (c)

Rating: 705 bhp

SIC: 1099

SCC: 99999999

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**  
**Eldon Heaston**  
Air Pollution Control Officer

Capacity	Equipment Description
10	F10-P141 Cerium Thickener Feed Pump #1
10	F10-P142 Cerium Thickener Feed Pump #1A
10	F10-P241 Cerium Thickener Feed Pump #2
10	F10-P143 Cerium-Free Liquor Pump #1
10	F10-P144 Cerium-Free Liquor Pump #2
0	F10-P147 TBD
0	F10-P247 TBD
0	F10-F141 Cerium Free Polishing Filter #1
0	F10-F142 Cerium Free Polishing Filter #2
10	F10-P131 Bleach Pump #1
10	F10-P231 Bleach Pump #2
10	F10-P132 Bleach Pump #3
10	F10-P232 Bleach Pump #4
10	F10-P129 Safety Vent Tank Pump
30	F10-P101 Cerium Feed Pump #1
30	F10-P102 Cerium Feed Pump #2
60	F10-P701 Chilled Water Pump #1
60	F10-P702 Chilled Water Pump #2
10	F55-AG302 Dissolution Agitator #1
10	F55-AG303 Dissolution Agitator #2
10	F55-AG304 pH Adjustment Agitator #2
10	F55-AG305 pH Adjustment Agitator #1 F55-AG301 Cerium Oxide Slurry Agitator
15	F55-AG301 Cerium Oxide Slurry Agitator
15	F55-AG310 Cerium Chloride Recycle Agitator
5	F55-P302 Dissolution O/F Pump
20	F55-P304 Cerium Chloride Supply Pump #2
20	F55-P305 Cerium Chloride Supply Pump #1
5	F55-P301 Cerium Oxide Slurry Supply Pump
5	F55-P310 Cerium Chloride Recycle Sump Pump
0	F55-F302 Cerium Chloride Polishing Filter #1
0	F55-F303 Cerium Chloride Polishing Filter #2
0	F10-HX147 "Pick" Heater
0	F10-HX101 Cerium Feed Cooler - steam provided by cogen plant
0	F55-HX302 Dissolution Heater #1- steam provided by cogen plant
0	F55-HX303 Dissolution Heater #2- steam provided by cogen plant
0	F55-HX304 Dissolution Cooler- steam provided by cogen plant
0	F55-HX301 Cerium Chloride Recycle Heater- steam provided by cogen plant
0	F10-RE111 Cerium Reactor #1
0	F10-RE121 Cerium Reactor #2
0	F10-RE211 Cerium Reactor #3
0	F10-RE221 Cerium Reactor #4
0	F10-TK141 Cerium Thickener Feed Tank
0	F10-TK241 Cerium Thickener Feed Tank
0	F10-TK143 Cerium-Free Liquor Tank #1
0	F55-RE302 Dissolution Tank #1
0	F55-RE303 Dissolution Tank #2
0	F55-TK302 Dissolution O/F Tank
0	F55-TK305 pH Adjust Tank #1
0	F55-TK304 pH Adjust Tank #2
0	F55-TK301 Cerium Oxide Slurry Tank

Capacity	Equipment Description
0	F55-TK310 Cerium Chloride Recycle Tank
0	F10-TK131 Bleach Tank
0	F10-TK129 Safety Vent Tank
0	F10-TK101 Cerium Feed Storage Tank
0	F10-TK701 Chilled Water Feed Tank
0	F10-TH141 Cerium Thickener #1
0	F10-TH241 Cerium Thickener #2
0	F10-TK147 Filter Thickener Wash Water Tank

**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. The following equipment shall not be operated unless it is vented to a properly functioning scrubber under valid District permit C011515:

- (a) Cerium Reactors
- (b) Cerium Thickener Feed Tanks
- (c) Cerium-Free Liquor Tank
- (d) Dissolution Tanks
- (e) Dissolution O/F Tank
- (f) pH Adjustment Tanks
- (g) Cerium Oxide Slurry Tank
- (h) Cerium Chloride Recycle Tank

4. This equipment shall not discharge hydrogen chloride at more than a maximum of 800 ppm v/v, per District rule 406. To show compliance with this limit for equipment (Cerium Feed Storage Tank (F10-TK101)), which does not vent to C011515, the owner/operator, o/o, shall demonstrate that the HCl concentration in the liquid contained in the Cerium Feed Storage Tank (F10-TK101) shall remain at or below 12% HCl. The concentration of HCl in the Cerium Feed Storage Tank (F10-TK101) shall be recorded weekly to show compliance with this limit, 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. (a) Mountain Pass Mine Facility Emissions Limits: The total criteria pollutant emissions for the Mountain Pass Mine shall be less than: 42 tons per year of NOx, 25 tons per year of VOC, 46 tons per year of PM10, 25 tons per year of SOx, and 100 tons per year of CO. The total emissions of Hazardous Air Pollutants (HAPs) for the Mountain Pass Mine shall be less than 10 tons per year for any single HAP and 25 tons per year for any combination of HAPs calculated on an annual basis. HAPs are defined in 40 CFR 61.01 and are the chemical compounds listed in section 112(b) of the Clean Air Act (Act).

(b) 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. The Comprehensive Emission Inventory Plan (CEIP) shall be due no later than March 31 of the year following the year of the actual emissions to be reported. Emissions will be calculated separately for each emissions source on a monthly basis and used to calculate the 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 approved CEIR shall be kept on site and provided to District personnel upon request.

(c) A facility wide Comprehensive Emission Inventory (CEIR) must be submitted to the District, in a format approved by the District, for all emitted criteria air pollutant on a yearly basis, and every three years for toxic air pollutants, which is to be received by the District no later than April 30 of the following year.

[40 CFR 70.6 (a)(3)(i)(B) - Periodic Monitoring Requirements]

[Rule 204 - Permit Conditions; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

[California Clean Air Act, Health and Safety Code \S\S39607 and \S\S44300 et seq., and the Federal Clean Air Act, \S110(a)(2)(F)(ii), codified in 40 CFR 60]