



**MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT**

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

**PERMIT TO OPERATE**

B004921

Operation under this permit must be conducted in compliance with all information included with the initial application, initial permit condition, and conditions contained herein. The equipment must be maintained and kept in good operating condition at all times. This Permit to Operate or copy must be posted on or within 8 meters of equipment. If a copy is posted, the original must be maintained on site, available for inspection at all times.

**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 REDOX CIRCUIT consisting of: Oxidation with sodium hypochlorite solution, pH adjustment with HCl solution

**EQUIPMENT**

Capacity	Equipment Description
0	54-1101-01 Redox Precipitation Tank Agitator No. 1
0	54-1101-02 Redox Precipitation Tank Agitator No. 2
0	54-1101-02 Redox Precipitation Tank Agitator No. 3
0	54-1102-01 Redox Thickener Mix Tank Agitator No. 1
0	54-1102-02 Redox Thickener Mix Tank Agitator No. 2
0	54-1103 Redox Leach Tank Agitator
0	54-1104-01 Syn Ce Precipitation Tank Agitator No. 1
0	54-1104-02 Syn Ce Precipitation Tank Agitator No.2
0	54-1104-03 Syn Ce Precipitation Tank Agitator No. 3
0	54-1104-04 Syn Ce Precipitation Tank Agitator No. 4
0	54-1105-01 Syn Ce Thickener Mix Tank Agitator No. 1
0	54-1105-02 Syn Ce Thickener Mix Tank Agitator No. 2
0	54-1106 Redox Leach Tank Agitator
0	54-1107 Redox Overflow Sump Agitator

Fee Schedule: 1 (b)

Rating: 149.8 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
0	54-1108 No. 1 Ce Filter Thickener, 8 ft diameter by 8 ft high
0	54-1601 Air Compressor
0	54-1602 Vacuum Pump @ 125 hp
0	54-2401 Redox Thickener Stand Pipe
0	54-2601 Vacuum Receiver
0	54-2701-01 No. 1 Raffinate Discharge Pump, @ 90 gal/min
0	54-2701-02 No.2 Raffinate Discharge Pump, @ 90 gal/min
0	54-2702 Redox Thickener ODS Pump @ 6 gal/min
0	54-2703 Redox Thickener ODS Pump @ 4 gal/min
0	54-2704-01 No. 1 Redox Thickener Overflow Pump @ 72 gal/min
0	54-2704-02 No. 2 Redox Thickener Overflow Pump @ 72 gal/min
0	54-2705-01 No. 1 Cerium Free Liquor Pump, @ 90 gal/min
0	54-2705-02 No. 2 Cerium Free Liquor Pump, @ 90 gal/min
0	54-2706 Redox Filtrate Pump @ 5 gal/min
0	54-2707 Redox Leach Pump @ 25 gal/min
0	54-2708 Redox Scrubber Return
0	54-2709-01 No. 1 Redox Cerium Liquor Discharge Pump @ 30 gal/min
0	54-2709-02 No. 2 Redox Cerium Liquor Discharge Pump @ 30 gal/min
0	54-2701-01 No. 1 Cerium-96 Liquor Discharge Pump @ 30 gal/min
0	54-2701-02 No. 2 Cerium-96 Liquor Discharge Pump @ 30 gal/min
0	54-2711-01 No. 1 Syn Ce ODS Pump @ 7 gal /min
0	54-2711-02 No. 2 Syn Ce ODS Pump @ 7 gal /min
0	54-2711-03 No. 3 Syn Ce ODS Pump @ 7 gal /min
0	54-2711-04 No. 4 Syn Ce ODS Pump @ 7 gal /min
0	54-2714 No. 1 Cerium Filter Thickener ODS Pump
0	54-2715-01 No. 1 Scrubber Solution Supply Pump @50 gal/min
0	54-2715-02 No. 2 Scrubber Solution Supply Pump @50 gal/min
0	54-2716-01 No. 1 Digester Liquor Pump @ 25 gal/min
0	54-2716-02 No. 2 Digester Liquor Pump @ 25 gal/min
0	54-3201 Redox Drum Filter, 6 ft in diameter by 7.5 ft high
0	54-3301 Raffinate Collection Tank, 14 ft in diameter by 20 high
0	54-3302-01 No. 1 Redox Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3302-02 No. 2 Redox Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3302-03 No. 3 Redox Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3303-01 No. 1 Redox Thickener Mix Tank, 3 ft in diameter by 4 ft high
0	54-3303-02 No. 2 Redox Thickener Mix Tank, 3 ft in diameter by 4 ft high
0	54-3304 No. 1 Redox Thickener Tank, 30 ft in diameter by 12 ft high
0	54-3305 No. 2 Redox Thickener Tank, 30 ft in diameter by 12 ft high
0	54-3306 Cerium Free Liquor Tank, 14 ft in diameter by 20 ft high
0	54-3307 Redox Leach Tank, 8 ft in diameter by 8 ft high
0	54-3309 Pump Box for Scrubber
0	54-3310 Redox Cerium Liquor Storage Tank, 13 ft in diameter by 10 ft high
0	54-3111 Cerium-96 Liquor Storage Tank, 13 ft in diameter by 10 ft high
0	54-3312-01 No. 1 Syn Ce Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3312-02 No. 2 Syn Ce Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3312-03 No. 3 Syn Ce Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3312-04 No. 4 Syn Ce Precipitation Tank, 8 ft in diameter by 8 ft high
0	54-3314-01 No. 1 Syn Ce Thickener Mix Tank 3 ft in diameter by 4 ft high
0	54-3314-02 No. 2 Syn Ce Thickener Mix Tank 3 ft in diameter by 4 ft high
0	54-3314-03 No. 3 Syn Ce Thickener Mix Tank 20 ft in diameter by 10 ft high

Capacity	Equipment Description
0	54-3314-04 No. 4 Syn Ce Thickener Mix Tank 20 ft in diameter by 10 ft high
0	54-3317 Redox Leach Tank, 7 ft in diameter by 7 ft high
0	54-3318 Redox Overflow Sump for the Redox Leach Tank, 54-3317 (above)
0	54-3319 Vacuum Pump Silencer
0	54-3320 No. Cerium Filter Thickener, 8 ft in diameter by 8 ft high
0	54-3321 No. Cerium Filter Thickener Mix Tank, 3 ft in diameter by 4 ft high
0	54-3401 Redox Thickener Rake for No. 1 Redox Thickener Tank (54-3304)
0	54-3402 Redox Thickener Rake for No. 2 Redox Thickener Tank (54-3305)
0	54-3403 Syn Cerium Thickener Rake for corresponding Mix Tank (54-3315), @ 1.5 hp
0	54-3404 Syn Cerium Thickener Rake for corresponding Mix Tank (54-3316), @ 1.5 hp
0	54-3405 Redox Thickener Drive
0	54-3406 Redox Thickener Drive
0	54-3407 Syn Ce Thickener Drive
0	54-3408 Syn Ce Thickener Drive
0	54-3501 Redox Vapor Scrubber (See District permit C004922)
0	54-2602 Air Receiver, 36 in in diameter by 73.5 in long

### CONDITIONS:

1. The owner/operator, o/o, shall operate/maintain all the equipment delineated above in strict accord with the recommendations of the manufacturer/supplier and/or sound engineering principles, which produce the minimum of emissions.

2. This equipment, inclusive of all redox precipitation tanks and the associated leach tanks shall not be operated unless vented to properly functioning scrubber under valid District permit C004922.

3. (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]