



**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**

B011592

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:**

WET LANTHANUM - PROCESS TRAIN 1 consisting of:

**EQUIPMENT**

Capacity	Equipment Description
0	F60-TK100 SxD Raffinate Feed Tank 30000 gallon
0	F60-TK110 La Carbonate Precip Tank #1 12900 gallon
0	F60-TK120 La Carbonate Precip Tank #2 12900 gallon
0	F60-TK130 La Carbonate Precip Tank #3 12900 gallon
0	F60-HX100 SxD Raffinate Feed Heat Exchanger
15	F60-P100 SxD Raffinate Feed Tank Pump No.1
15	572-F60-P101 Lanthanum Precipitation Feed Pump
25	F60-AG110 La Carbonate Precip Tank No. 1 Agitator
25	F60-AG120 La Carbonate Precip Tank No. 2 Agitator
25	F60-AG130 La Carbonate Precip Tank No. 3 Agitator
30	F60-P130 La Carbonate Slurry Pump No. 1
30	F60-P131 La Carbonate Slurry Pump No. 2

Fee Schedule: 1 (c)

Rating: 486.5 bhp

SIC: 1099

SCC: N/A

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	F60-TK142 La Carbonate Mother Liquor Hold Tank 12900 gallon
0	F60-TK155 La Carbonate Recycle Wash Tank 12900 gallon
60	F60-P142 La Carbonate ML Paste Tails Pump No. 1
60	F60-P143 La Carbonate ML Paste Tails Pump No. 2
0	F60-P155 La Carbonate Recycle Wash Water Pump No. 1
0	F60- Hydrocyclone
0	F60-P150 La Carbonate Centrifuge Feed Pump No. 1
0	F60-P160 La Carbonate Centrifuge Feed Pump No. 2
0	F60-SFxxx Sparkler Filter No. 1
0	F60-SFxxx Sparkler Filter No. 2
0	F60-TK131 La Centrifuge Feed Tank 12900 gallon
0	F60- La Centrifuge Feed Tank Agitator
0	F60-AREC151 La Carbonate Centrifuge Air Accumulator
0	F60- La Carbonate Centrifuge No. 1 Standpipe Pump
0	F60-TK208 La Carbonate Centrifuge No. 1 Standpipe 600 gallon
0	F60- La Carbonate Centrifuge No. 2 Standpipe Pump
0	F60-TK209 La Carbonate Centrifuge No. 2 Standpipe 600 gallon
115	F60-CENH150 La Carbonate Centrifuge No. 1
115	F60-CENH160 La Carbonate Centrifuge No. 2
25	572-F60-AG01 Lanthanum Belt Filter Cake Repulp Tank Agitator
25	572-F60-AG02 Lanthanum Filter Press Feed Tank Agitator
15	572-F60-AG07 Lanthanum Filter Press Filtrate Tank Agitator
15	572-F60-AG03 Lanthanum Thickener #1 Mix Box Agitator
15	572-F60-AG04 Lanthanum Thickener #2 Mix Box Agitator
25	572-F60-AG140 Lanthanum Thickener #1 Feed Tank Agitator
0	572-F60-AREC01 Air Receiver
0	572-F60-AS01 Air Water Separator
20	572-F60-CV01 Lanthanum Belt Cake Conveyor
15	572-F60-CV02 Lanthanum Filter Press Cake Discharge Conveyor
20	572-F60-CV03 Lanthanum Filter Press Transfer Conveyor
3	572-F60-FI01 Lanthanum Belt Filter
10.5	572-F60-FI02 Lanthanum Filter Press (10 hp hydraulic pump + 0.5 hp hydraulic cooler)
0	572-F60-HX03 Heat Exchanger - RO Water
0	572-F60-ME01 Lanthanum Thickener #1 Mechanism
0	572-F60-ME02 Lanthanum Thickener #2 Mechanism
1	572-F60-P01 Lanthanum Thickener #1 Under Flow Pumps
1	572-F60-P02 Lanthanum Thickener #1 Under Flow Pumps (Spare)
10	572-F60-P03 Lanthanum Thickener #1 Over Flow Pump
10	572-F60-P04 Lanthanum Thickener #1 Over Flow Pump (Spare)
1	572-F60-P05 Lanthanum Thickener #2 Under Flow Pump
1	572-F60-P06 Lanthanum Thickener #2 Under Flow Pump (Spare)
5	572-F60-P07 First Stage Wash Pump
5	572-F60-P08 Second Stage Wash Pump
1	572-F60-P10 Lanthanum Belt Filter Cake Repulp Pump (Spare)
5	572-F60-P11 Lanthanum Filter Press Feed Pump
5	572-F60-P12 Lanthanum Filter Press Feed Pump (Spare)
20	572-F60-P13 Lanthanum Filter Press Wash Water Pump
20	572-F60-P14 Lanthanum Filter Press Wash Water Pump (Spare)
1	572-F60-P15 Lanthanum Filter Press Filtrate Pump
1	572-F60-P16 Lanthanum Filter Press Filtrate Pump (Spare)

Capacity	Equipment Description
15	572-F60-P19 Barometric Area Sump Pump
15	572-F60-P20 Lanthanum Carbonate Area Sump Pump
5	572-F60-P21 Lanthanum Belt Filter Filtrate Pump
5	572-F60-P22 Lanthanum Belt Filter Filtrate Pump (Spare)
5	572-F60-P23 Lanthanum Filter Press Cake Wash Pump
5	572-F60-P24 Lanthanum Filter Press Cake Wash Pump
20	572-F60-P140 Lanthanum Thickener Feed Pump
20	572-F60-P141 Lanthanum Thickener Feed Pump (Spare)
0	572-F60-SIL01 Silencer
0	572-F60-TH01 Lanthanum Thickener #1
0	572-F60-TH02 Lanthanum Thickener #2
0	572-F60-TK01 Lanthanum Thickener #1 Mix Box
0	572-F60-TK02 Lanthanum Thickener #2 Mix Box
0	572-F60-TK03 Lanthanum Thickener #1 Overflow Tank
0	572-F60-TK04 Receiver
0	572-F60-TK05 Receiver
0	572-F60-TK06 Receiver
0	572-F60-TK07 Lanthanum Belt Filter Cake Repulp Tank
0	572-F60-TK08 Lanthanum Filter Press Feed Tank
0	572-F60-TK09 Lanthanum Filter Press Filtrate Tank
0	572-F60-TK10 Lanthanum Filter Press Wash Water Tank
0	572-F60-TK12 Moisture Trap
0	572-F60-TK15 Lanthanum Belt Filter Barometric Seal Pot
0	572-F60-TK140 Lanthanum Thickener #1 Feed Tank
60	572-F60-VP01 Vacuum Pumps
60	572-F60-VP02 Vacuum Pumps
1	572-F60-P09 Lanthanum Belt Filter Cake Repulp Pump

## CONDITIONS:

- 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.
- This equipment shall be operated and maintained in strict accord with the recommendations of the manufacturer or supplier and/or sound engineering principles.
- 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 2% in the following tanks: SXD Raffinate Feed Tank (F60-TK100), and Lanthanum Carbonate Precipitation Tanks (F60-TK110, F60-TK120, F60-TK130).  
  
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.
- Actual emissions from this facility shall be less than the following:
  - 42 tons per year of NOx [Rule 1303(B)]
  - 46 tons per year of PM10 [Rule 1303(B)]
  - 25 tons per year of VOC
  - 25 tons per year of SOx

e. 100 tons per year of CO, calculated on a rolling twelve-month basis

f. 10 tons per year for any single HAP and 25 tons per year for any combination of HAPs calculated on a rolling twelve-month 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). Compliance with the annual emission limits shall be demonstrated via 12 month rolling sum for CO and HAP via annual emission inventory reports for all criteria pollutants and HAP.

[District Rule 1303 - Offsets]

5. 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]