



## 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

B012318

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: NOVEMBER 2024

#### OWNER OF OPERATOR (Co. #86)

MAGTFTC MCAGCC  
Box 788110, Bldg 1418  
Twentynine Palms, CA 92278-8110

#### EQUIPMENT LOCATION (Fac. #3250)

USMC AGCC - USMC Recycling  
Box 788110, Bldg. 1451  
Twentynine Palms, CA 92278

#### Description:

FURNACE, ALUMINUM SWEAT (BLDG 2096) consisting of: a US Furnaces (Recycling Services International) Model MAX-4000. The molten metal holding capacity is 4000 lb. This unit is a batch type furnace having a primary and holding chamber (main furnace) and afterburner and stack and is fired by natural gas and/or propane. This unit is equipped with a 1.5 second residence time afterburner.

#### EQUIPMENT

| Capacity | Equipment Description  |
|----------|--|
| 2.5      | Two Eclipse Ratio Air Medium Velocity Primary Burners, Each 1.25 MMBtu |
| 1.5      | Eclipse Therm Air Holding Chamber Burner, 1.5 MMBtu                    |
| 1        | Eclipse Therm Air Afterburner, 1.0 MMBtu                               |

#### CONDITIONS:

1. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants.

2. This equipment shall use only natural gas or propane for fuel.

3. The owner/operator (o/o) shall limit melting to 1352 tons of clean aluminum scrap charge per calendar year. Clean is defined as

Fee Schedule: 2 (d)      Rating: 5500000Btu      SIC: 9711      SCC: 30400102      Location/UTM(Km): 587E/3788N

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.

MAGTFTC MCAGCC  
Box 788110, Building 1418  
Twentynine Palms, CA 92278-8110

By: **COPY**  
**Brad Poiriez**  
Air Pollution Control Officer

having no liquid organic materials or gross amounts of particulate matter present (excluding paints and coatings).

4.This equipment shall be operated in compliance with 40 CFR 63, Subpart RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

5.This equipment shall vent through an afterburner, and the Afterburner Retention Chamber exit temperature shall be 1,600 degree F or greater before aluminum scrap is charged to the furnace and maintained at 1,600 degrees Fahrenheit or greater during each melt with a residence time of at least 0.8 seconds.

[40 CFR 63.1505(f)(1)]

6.The o/o shall install, calibrate, maintain, and operate a Temperature Monitoring System (TMS) on the exit of the Afterburner Retention Chamber. The minimum requirements are as follows:

A. The TMS must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer systems,

B. The TMS must have a span of at least 0 - 2,400 degrees Fahrenheit,

C. The TMS must record the temperature in one (1)-minute increments. At the end of each day, the data will be rendered first into fifteen (15) minute blocks and averaged. Then the 15-minute blocks will be rendered into consecutive three (3)-hour blocks and averaged again,

D. The TMS thermocouples must be calibrated by the manufacturer and a copy of this calibration or "Thermocouple Reference Table" must be keep on file at the facility,

E. When the average temperature in any 3-hour block period fall below the compliant operating parameter value of 1,600 degrees F enter into the log a brief explanation of the cause of the excursion and corrective action taken.

[40 CFR 63.1510(b)(4)(I) & (g)(1) and (2), 1512(m)(1) & 1517(b)(2)]

7.The o/o must provide and maintain easily visible sign or signs that state the following:

A. Identify with equipment as a sweat furnace with an afterburner.

B. That only clean scrap can be charged to the furnace.

C. That the outlet temperature of the afterburner chamber must be at least 1,600 degrees F prior to changing and during all melting

[40 CFR 63.1506(b)]

8.This equipment shall not discharge with an opacity (visible emissions) in excess of 10 percent as measured by USEPA Reference Method 22 or 9 as necessary.

9.This furnace shall be operated in accordance with a site-specific Operation, Maintenance and Malfunction Plan (OM&M Plan).

[40 CFR 63.1506(c)]

10.The o/o shall maintain a log for this equipment, which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of five (5) years and shall be provided to District personnel on request. The minimum amount of information to be recorded is as follows; (40 CFR 63.1517)

A. The date and weight of each aluminum 'sow' poured, in pounds,

B. Daily amount of aluminum 'sows' poured and amount of 'dross' and all other waste removed from the furnace each day, in pounds,

C. Monthly amount of aluminum 'sows' poured and amount of 'dross' and all other waste removed from the furnace each month, in tons,

D. Rolling 12-month amount of aluminum 'sows' poured and amount of 'dross' and all other waste removed from the furnace, in tons,

E. Daily amount of natural gas/propane burned, in either cubic feet or therms,

F. Monthly amount of natural gas burned, in either cubic feet or therms,

G. Rolling 12-month amount of natural gas burned, in either cubic feet or therms,

H. The daily minimum afterburner destruction zone exit temperature during each melt (in degrees Fahrenheit); and,

I. Notes of maintenance and repairs.

11.The o/o shall conduct an inspection of the afterburner at least once a year and record the results. As a minimum the inspection will consist of inspecting all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor, proper adjustment of combustion air, inspect dampers, fans, and blowers for proper operations, inspect all seals for proper sealing, inspect shell and refractory of the afterburner, and document for the burn cycle after the inspection that the equipment is operating properly.

[40 CFR 63.1510(g)(3)]

12. The o/o shall prepare Startup, Shutdown and Malfunction (SS&M) Plan and Reports. The o/o must develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during period of startup, shutdown, and malfunctions, and a program of corrective action for malfunctioning process and air pollution control equipment used comply with this standard. The o/o shall also keep records of each event as required by 40 CFR 63.6.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the SS&M Plan as described in 40 CFR 63.6(e)(3). In addition to the information required in 40 CFR 63.6(e)(3), the plan must include:

A. Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

B. Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the action taken to correct the malfunction or minimize emissions.

[40 CFR 63.1515(a)]