

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

N010152589

FACILITY: EXPERI-METAL INC		SRN / ID: N0101
LOCATION: 6385 WALL ST, STERLING HTS		DISTRICT: Southeast Michigan
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT: Ed Strucinski , Safety Coordinator		ACTIVITY DATE: 02/28/2020
STAFF: Kaitlyn Leffert	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY2020 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On February 28th, 2020, I, Kaitlyn Leffert, Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff, conducted a scheduled inspection of Experi-Metal (SRN: N0101), located at 6385 Wall Street, Sterling Heights, MI. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); AQD administrative rules; and Permit to Install (PTI) Number 54-19.

Overview

Experi-Metal manufactures and supplies metal parts, primarily for use as prototype parts in the automotive, aerospace, and defense industries. The facility is permitted to operate four natural gas-fired kirksite (zinc-aluminum alloy) foundry furnaces with heating capacities that range from 1.3 to 2.5 MMBtu/hr. The material from the foundry is used to form specialty tooling for use in manufacturing prototype parts. In addition to the permitted foundry process, the facility operates a variety of stamping, machining, and manufacturing equipment on-site. These equipment were previously determined to be exempt during the permitting review in 2019.

The material use and recordkeeping requirements in the permit are there to avoid to the requirements of 40 CFR Part 63 Subpart ZZZZZZ, National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries.

I arrived at the facility around 11:00 am. I met with Ed Strucinski, EHS coordinator, who assisted me during the duration of my inspection. We first did a walk-through of the facility and then went to his office to review records.

Records Review

The facility is required to maintain records of the weight and description of all charge materials added to the foundry furnaces on daily basis. Experi-Metal is also required to maintain monthly and 12-month rolling records of the total weight and description of charge materials added to the furnaces. The facility maintains all records on-site and provided me copies of the daily, monthly, and 12-month rolling records of charge materials added to the furnace. There is not an associated limit on the quantity of charge materials processed, but these records are to be maintained for emission calculations purposes.

The facility is also required to maintain records of the composition of each alloy melted in FGFURNACES in order to demonstrate compliance with the material limits in the permit. The facility is prohibited from melting any material that contains chromium, lead, or nickel in quantities greater than 0.1 percent by weight. The facility is also only allowed to melt zinc and aluminum alloys in the furnaces. These limits are to exempt the facility from the Area MACT.

The SDS of the kirksite material burned in the furnaces is attached. Based on the SDS, Experi-Metal is operating in compliance with the material limits in the permit. The kirksite alloy is comprised primarily of zinc and aluminum. The mixture is 0.020% nickel by weight and 0.005% lead by weight. This alloy is the only type currently used and is ideal for manufacturing prototype parts. The facility has no plans to change the type of material melted in the furnaces.

Facility Walk-Through

Mr. Strucinski led me on a walk-through of the facility. Experi-Metal's operations are spread across three different buildings and the entire manufacturing process of the parts takes place on site, from pouring the molten kirksite to form the specialty tools to stamping steel sheets with those tools and assembling and manufacturing the final parts and products. As previously mentioned, the majority of the operations located on-site were previously determined to be exempt during the permitting process. During my inspection, I did not observe any

additional processes that would require a permit to operate.

The foundry portion of the facility contains four furnaces, where kirkSITE is melted and poured into custom made molds. The specialty molds are made on site by cutting Styrofoam into the desired shape and surrounding it with a sand mixture. The molten kirkSITE is then poured into the sand mold. Once the kirkSITE has cooled, it is removed from the mold by chipping away the sand and Styrofoam. The used Styrofoam from the process is sent to a facility to be recycled. The kirkSITE tools are then machined to ensure they are the proper shape, and then they are ready for use in the presses.

Conclusion

Based on my on-site inspection and review of the required records, Experi-Metal (SRN: N0101) appears to be in compliance with all conditions of PTI No.54-19, as well as all applicable air quality rules and regulations.

NAME Kathryn Logant

DATE 03/25/2020

SUPERVISOR Subantonykallankal