

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

B663542679

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| FACILITY: Great Lakes Die Cast Corp. | SRN / ID: B6635 |
| LOCATION: 1806 BEIDLER, MUSKEGON | DISTRICT: Grand Rapids |
| CITY: MUSKEGON | COUNTY: MUSKEGON |
| CONTACT: Robert Ward , Maintenance Manager | ACTIVITY DATE: 12/14/2017 |
| STAFF: Eric Grinstern | COMPLIANCE STATUS: Compliance |
| SUBJECT: Unannounced compliance inspection | SOURCE CLASS: N/A |
| RESOLVED COMPLAINTS: | |

FACILITY DESCRIPTION

Great Lakes Die Casting is an aluminum die casting facility. The facility primarily conducts casting and finishing operations.

The facility has approximately 66 employees. The facility currently operates two 8-hour shifts five days a week.

REGULATORY ANALYSIS

The facility currently has three permits to install, PTI No. 266-96, PTI No. 265-96 and PTI No. 265-96A. The equipment associated with PTI No. 266-96 was removed several years ago. A void request will be processed for PTI No. 266-96. PTI No. 256-96, covers four melt furnaces, three of which have been removed. PTI No. 265-96A covers two furnaces, of which only one was ever installed.

COMPLIANCE EVALUATION

At the facility, AQD staff, consisting of Eric Grinstern (EG), met with Dean Hodges - Organizational Manager, Allison Moskwa - HR/Safety, and Robert Ward - Maintenance Manager. Mr. Ward accompanied EG on a tour of the facility operations.

Prior to entering the facility, no visible emissions or odors were observed.

Facility operations are located in two separate buildings, Plant 1 and Plant 3.

Plant 1 previously housed Furnaces No.1, No.2, No.3 and No.4, covered under Permit to Install No. 265-96. The facility has removed all but Furnace No. 4. Furnace No. 4 (20k capacity) is disconnected and is not currently in operation. The facility conducts polishing and CNC work in Plant 1. These operations have baghouse control which are exempt from permitting under Rule 285(2)(l)(vi)(C).

Plant 3 houses a 64k capacity reverberatory furnace that is permitted under PTI No. 265-96A. This permit also covers an 8.4k furnace that was never installed. EG explained that due to the time delay, the installation of an additional furnace would need to be re-permitted to be installed. The 64k furnace supplies aluminum to 6 holding furnaces associated with 6 die cast lines.

The 64k furnace has hoods over the hearth and charge well which duct to the outside atmosphere uncontrolled.

EMISSION LIMIT

The permit limits PM from the 64k baghouse to 4.8 pounds per hour and 21 tons per year. Compliance with the PM limit can be determined via stack testing, which has not been requested. Compliance is also based upon material limits, i.e., charging only clean material and flux usage restrictions

MATERIAL LIMITS

Limits charge material to clean charge and materials generated within the facility. The facility stated that they only charge spec. ingot and internal runaround. No secondary aluminum charge was observed during the inspection.

Limits flux usage to 159 pounds per day, based on monthly usage records. Review of facility records for the previous 12 months showed flux usage under 159 pounds per day. In general, the facility fluxes the main hearth once per day with 64 pounds of flux and the side charge well with 14 pounds during each of the two shifts. This equates to 92 pounds of flux usage per day.

OBSERVATIONS

Observation of the melt furnace showed no opacity being emitted in-plant. Staff could not observe the stack since it is located in the center of the building with no observed access point. Observation of the die casting units showed smoke being emitted from one of the units. Mr. Ward stated that some smoke is generated upon start-up when they are conducting "grease shots". Grease shots involve the use of soy biodiesel as a release agent. After start-up the facility uses a die spray as a release agent (Quaker Die Slick #2766). The die casters are exempt from permitting under Rule 285(2)(1)(ii).

In addition to the aluminum reverberatory furnace and associated holding furnaces and die casters, Plant 3 also contains four polishing cells and a shotblast unit. Each of these units are controlled by individual baghouses. These processes were installed as being exempt from permitting under Rule 285 (2)(1)(vi)(C).

CONCLUSION

Based on the information and observations made as part of this inspection, the facility appears to be in compliance with applicable air quality rules and regulations.

NAME



DATE

12/18/17

SUPERVISOR

