

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

P123266176

FACILITY: Wilkast, Inc.		SRN / ID: P1232
LOCATION: 9100 Byron Commerce Drive, BYRON CENTER		DISTRICT: Grand Rapids
CITY: BYRON CENTER		COUNTY: KENT
CONTACT: Kevin Gibson , Die Cast Production Manager		ACTIVITY DATE: 01/23/2023
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: On-site unannounced compliance inspection		
RESOLVED COMPLAINTS:		

Unannounced on-site inspection of Wilkast, Inc. The facility is located at 9100 Byron Commerce Drive, Byron Center Township. The company recently built at this location. The company also has operations at their original location at 8025 Division Avenue, which is also in Byron Center Township.

At the facility, staff consisting of Eric Grinstern (EG) met with Steve Homrich, Engineering Manager and Kevin Gibson, Die Cast Production Manager.

The facility is an aluminum die casting operation. The facility has one air use permit, PTI No. 95-21. PTI No. 95-21 addresses two natural gas-fired aluminum crucible melting furnaces. Each of the furnaces are permitted at a holding capacity of 2,400 pounds and a maximum melt rate of 880 pounds/hour.

Mr. Homrich and Mr. Gibson accompanied EG on an inspection of the facility.

The facility has the following operations: tool room, sanding, machining, warehouse and die casting.

The tool room (drilling, grinding, cutting) has no specific capture or control with any emissions vented to the in-plant environment. All operations appear to be exempt from permitting under Rule 285(2)(I)(vi)(B).

Sanding is conducted in a separate room with belt sanders. The belt sanders have capture and control provided by a cartridge collector that vents back into the sanding room. The sanding operations appear to be exempt from permitting under Rule 285(2)(I)(vi)(B).

Machining is conducted in a separate room that has no capture or control, with any emissions are vented to the in-plant environment. The machining operations appear to be exempt from permitting under Rule 285(2)(I)(vi)(B).

Die casting currently consists of two natural gas-fired aluminum crucible melting furnaces, each of which has an associated automated ladle and caster. The die casting machines are exempt from permitting under Rule 285(2)(I)(ii).

Since the facility recently started operations at this location, they are currently only operating one of the furnaces and caster, while working to bring the other furnace and caster online. Review of each of the furnaces show them to be rated at or below what which was permitted.

Below is an evaluation of compliance with the requirements of the permit for the melting furnaces (PTI No. 95-21).

FGALFURNACES**MATERIAL LIMIT(S)**

The permit restricts aluminum throughput from both furnaces to 3,520 tons/year.

The facility provided records documenting that they used 34.65 tons since they started operating on November 30, 2021.

The facility is restricted to melting only clean charge as defined in Subpart RRR, only burn natural gas, and not use any flux in the furnaces.

During the inspection, only spec aluminum ingot was observed as furnace charge material, and the only source of fuel observed was natural gas. The facility stated that no flux is used in the furnaces and no flux was observed on-site during the inspection.

DESIGN/EQUIPMENT PARAMETER(S)

Restricts the maximum design holding capacity of each furnace to no greater than 2,400 pounds. The facility stated that the furnaces are restricted in capacity to 2,400 pounds of aluminum in each furnace based on the size of the crucible installed. The furnaces could hold more than 2,400 pounds if a different crucible was installed, however the maximum design with the installed crucible is 2,400 pounds.

MONITORING/RECORDKEEPING

Monitoring and recordkeeping requirements require the facility to keep records of aluminum melted in FGALFURNACES, in tons per month and tons per 12-month rolling time period.

The facility supplied aluminum usage records. The facility was reminded of the need to maintain records on a monthly and 12-month rolling basis.

STACK/VENT RESTRICTIONS

The furnace stacks are required to have a stack with a maximum diameter of 50 inches and a minimum height of 37.5 feet. The furnaces vent to the in-plant environment, however, the ceiling above the furnaces has a divider that is intended to isolate emissions from the furnaces and discharge the emissions through two powered stacks. This is the configuration supplied in the permit application and evaluated by Permits.

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

NAME 

DATE 2/1/23

SUPERVISOR 