

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

N113952265

FACILITY: COMPASS AUTOMOTIVE GROUP		SRN / ID: N1139
LOCATION: 3559 KRAFT AVE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Brian Bergakker, Plant Manager		ACTIVITY DATE: 01/29/2020
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

Unannounced inspection of Angstrom Aluminum Castings (formerly Compass Automotive)

FACILITY DESCRIPTION

Angstrom is located in the City of Grand Rapids, just north of the Gerald R. Ford Airport. The facility is located in an industrial/commercial area. The facility was most recently owned by Compass Automotive. Prior to Compass, the facility was owned by Citation. Angstrom operates a high pressure aluminum die casting operation, utilizing the same equipment that was operated by the previous owners of the facility. The facility only processed 383 alloy aluminum. The facility has approximately 25 employees and operates two 10-hour shifts, four days a week.

REGULATORY ANALYSIS

The facility holds two air use permits, PTI No. 156-98 and PTI No. 157-98. PTI No. 156-98 covers a Lindbergh/MPH gas fired reverberatory aluminum melting furnace. The furnace has a capacity to hold 45,000 pounds and melt 6,000 pounds per hour. This furnace is identified as the #1 South Furnace. PTI No. 157-98 covers a Lindbergh/MPH gas fired reverberatory aluminum melting furnace. The furnace has a capacity to hold 45,500 pounds and melt 6,000 pounds per hour. This furnace is identified as the #2 North Furnace.

COMPLIANCE EVALUATION

Prior to entering the facility a survey of the perimeter was made, no opacity or odors were noted from the facility.

At the facility EG met with Brian Bergakker, Plant Manager.

Below is an evaluation of compliance based on PTI Nos. 156-98 and 157-98.

Mr. Bergakker accompanied EG on a tour of the facility.

PTI No. 156-98

PTI No. 156-98 covers a 45,000 pound capacity aluminum reverb. furnace that is associated with the south casting line. In addition to the furnace, the south casting line consists of a laundering system and four die casting machines that each have a holding furnace. There is no direct capture or control of emissions from the laundering line or die casters. The reverb. furnace has hoods that vent emissions uncontrolled to the ambient air. The furnace has one hood over the charge door and one hood over the fluxing/dross removal door.

The permit restricts the emission of hydrogen fluoride from the melting furnace to 1.4 milligrams per cubic meter. Compliance with the limit can be verified through testing, which has not been required. Compliance is also based on the restriction of flux use. Flux use is limited to 0.15% by weight, of flux to aluminum melted.

The stacks from the melting furnaces are required to be a maximum of 44 inches in diameter and a minimum of 41 feet above ground. Visual observation of the stacks showed that they appeared to meet the permitted dimensions.

The south line was not in operation at the time of the inspection. Mr. Bergakker stated that the south side of the plant was shut down in August 2016.

PTI No. 157-98

PTI No. 157-98 covers a 45,000 pound capacity aluminum reverb. furnace that is associated with the north casting line. In addition to the furnace, the north casting line consists of a laundering system and 10 die casting machines that each have a holding furnace. The facility currently only operate 3-4 of the die casting machines. Each of the die casters has an associated water quench tank. There is not direct capture or control of emissions from the laundering line or die casters. Emissions are vented to the in-plant atmosphere. The reverb. furnace had hoods that vent emissions uncontrolled to the ambient air. The furnace has one hood over the charge door and one hood over the fluxing/dross removal door. Mr. Bergakker stated that they only flux the furnace, not the lauder system.

The permit restricts the emission of hydrogen fluoride from the melting furnace to 1.4 milligrams per cubic meter. Compliance with the limit can be verified through testing, which has not been required. Compliance is also based the restriction of flux use. Flux use is limited to 0.15% by weight, of flux to aluminum melted. The facility utilizes Pyroflux GRN16S, which is a granular flux made by Pyrotek. The facility has a subsurface injection unit that is also made by Pyrotek. Mr. Bergakker stated that they currently flux the furnace three times a week with 20 pounds of flux. The facility provided flux and metal throughput records for the past three years. The records document overall compliance for the past three years, with a 0.125% flux to metal usage rate. The records also document compliance in 2019 (0.122%) and in 2018 (0.066%). In 2017, the usage rate was slightly higher at 0.183%.

The stacks from the melting furnaces are required to be a maximum of 44 inches and diameter and a minimum of 41 feet above ground. Visual observation of the stacks showed that they appeared to meet the permitted dimensions.

Miscellaneous

The facility has several CNC machining units that are vented to the in-plant atmosphere. These processes are exempt from permitting under Rule 285(2)(vi)(B). Additionally, the facility has a small assembly area.

Conclusion

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

NAME



DATE

3/3/20

SUPERVISOR

