

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

N631063972

FACILITY: NORTHLAND CASTINGS CORP		SRN / ID: N6310
LOCATION: 4130 W TYLER RD, HART		DISTRICT: Grand Rapids
CITY: HART		COUNTY: OCEANA
CONTACT: Kirk Dow , Owner and President		ACTIVITY DATE: 07/19/2022
STAFF: Eric Grinstern	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced compliance inspection - EJ Foundry Initiative		
RESOLVED COMPLAINTS:		

Unannounced on-site inspection of Northland Castings Corporation. The facility was targeted for inspection in FY 22 under the statewide initiative evaluating secondary metal processing facilities located in Environmental Justice (EJ) areas. The facility is located in an EJ area using EPA EJSCREEN, based on the population within a one-mile radius of the facility having a Demographic Index and Low Income Population at or above the 75th percentile on a state-wide basis. An on-site inspection was conducted since it had been >5 years since the last inspection.

Prior to entering the facility, a survey of the area near the facility was made from the public roadway. No odors or visible emissions were observed to be resulting from Northland Castings.

FACILITY DESCRIPTION

The facility manufactures grey and ductile iron castings.

The facility currently has 6-7 employees and operates 5 days (M-F), 6-7 hours per day.

COMPLIANCE EVALUATION

At the facility, staff consisting of Eric Grinstern (EG) met with Kirk Dow, Owner and President. Mr. Dow accompanied EG on an inspection of the facility. Below is a summary of the processes and operations at the facility.

The facility holds three air use permits for onsite operations.

315-97 – Sand mulling equipment – baghouse control

316-97 – Grinding process – baghouse control

317-97 – Shotblasting – baghouse control

The facility is subject to Subpart ZZZZZ, area source iron and steel foundry NESHAP. The facility is a small area source. AQD records show that the facility has not submitted the semi-annual certifications from 2017 until current.

MOLD AND CORE MAKING

The facility uses green sand molds and sodium silicate molds and cores. The facility generally does not use any mold coating. Only a small amount of green sand molds are used. The facility has one squeeze unit for green sand mold making. The facility

previously manufactured and used furan cores, which are no longer used. The facility has one 250-pound per hour mixer for sodium silicate. This is the same mixer that was identified in previous inspections as having a 300-pound per hour capacity. The green sand system is mixed in a #2 Simpson muller that is controlled by a baghouse that is located in the front of the facility (PTI No. 315-97). The PTI limits particulate emissions to 0.1lb./1,000 pounds of exhaust gas and requires baghouse control. Compliance with the limit can be determined through testing, which has not been required. Compliance is also based on proper operation of the baghouse. The muller is currently only used about once a week. The muller was not in operation at the time of the inspection. Observation of the area around the baghouse showed good housekeeping practices.

Green sand is recycled, while the sodium silicate has an inert determination and is not recycled.

MELTING

The facility has three (3) 1,000-pound holding capacity electric induction furnaces.

Two of the furnaces can be operated at a time. The furnaces have no specific capture or control. The furnaces are exempt from permitting under Rule 282(2)(a) (vi). The facility produces ductile iron in a flow track box. Ductile makes up about 35-40% of metal production. The facility stated that they have always produced grey iron.

The facility charges 1010 busheling and internal runaround. They have purchase specifications for the scrap purchased.

POURING, COOLING & SHAKEOUT

Pouring is manually performed with the molds being poured and cooled on the floor. Shakeout is performed manually within the plant without capture or control.

FINISHING

The facility has one shot blast unit (PTI No. 316-97) that is controlled by a baghouse. The PTI limits particulate emissions to 0.1lb./1,000 pounds of exhaust gases and requires baghouse control. Compliance with the limit can be determined through testing, which has not been required. Compliance is also assumed based on proper operation of the baghouse. The shot blast unit was not operating at the time of the inspection. Observation of the area around the baghouse showed particulate that may have originated from the baghouse. Staff requested that the facility evaluate the baghouse to determine if maintenance is needed.

The facility has a finishing room with various grinding stations that are controlled by a Wheelabrator baghouse (PTI No. 316-97). The PTI limits particulate emissions to 0.1lb./1,000 pounds of exhaust gases and requires baghouse control. Compliance with the limit can be determined through testing, which has not been required. Compliance is also assumed based on proper operation of the baghouse.

Observation of the baghouse showed no visible particulate on the ground. The grinding stations and baghouse were not operating at the time of the inspection.

Subpart ZZZZZ – Area Source Iron and Steel Foundry NESHAP

The facility is subject to Subpart ZZZZZ and is classified as a small area source.

The facility has previously submitted the required notifications and semi-annual reports.

The facility failed to submit semi-annual certifications for 2017 until current.

The facility has scrap purchase specifications and only purchases 1010 busheling.

CONCLUSION

Based on the information and observations during this inspection, the facility appears to be in compliance at this time with applicable air quality rules and regulations, with the exception of the following:

Failure to submit NESHAP, 40 CFR Part 63 Subpart ZZZZZ (63.10890(f)) semi-annual certification reports for 2017 until current.

A Violation Notice will be issued for the above listed violation.

NAME Eric Grinstern

DATE 8/10/2022

SUPERVISOR HH