N1022
MANILA

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

N102268739

FACILITY: METALTEC STEEL ABRASIVE CO		**SRN / ID:** N1022
LOCATION: 41155 JOY RD, CANTON TWP		**DISTRICT:** Detroit
CITY: CANTON TWP		**COUNTY:** WAYNE
CONTACT: Martin Schendel , Director of Quality		**ACTIVITY DATE:** 08/28/2023
STAFF: Jill Zimmerman	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Environmental Justice Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : **August 28, 2023**

TIME OF INSPECTION : **1:00 pm**

INSPECTED BY : **Jill Zimmerman**

Eric Grinstern

PERSONNEL PRESENT : **Martin Schendel**

Bruce Keener, President

FACILITY PHONE NUMBER : **734-459-7900**

FACILITY EMAIL : **mschendel@metaltecsteel.com**

FACILITY BACKGROUND

Metaltec Steel Abrasive is located on the southwest corner of Joy Road and Haggerty Road in Canton, Michigan. The area surrounding the facility is an industrial and commercial area. The facility operates Sunday morning through Saturday morning, with most of the work occurring during the traditional third shift time.

The facility melts scrap metal and transforms it into a metal shot used for shot cleaning such things as overpass bridges and other metal structures. The facility has been operating at this location for more than 15 years.

COMPLAINT/COMPLIANCE HISTORY

Since the last inspection on March 24, 2022, no complaints have been received regarding this facility.

OUTSTANDING VNs

No violation notices (VN) have been issued since the last inspection, which was March 24, 2022.

PROCESS EQUIPMENT AND CONTROLS

Scrap metal is brought to the facility usually by truck. All truck deliveries are prescheduled to ensure that most of the scrap collected during the month is melted during that month. The process at both foundries is basically the same. The north foundry only produces low carbon steel shot. The south foundry produces low carbon steel shot or high carbon steel shot. The high carbon steel shot passes through the grit process, where it is crushed into a more abrasive product.

The scrap metal is placed in either the storage pit at the north foundry or the storage pad at the south foundry. From either pad, the scrap metal is picked up with a giant magnet and placed into the furnace, where it is melted. After it is melted, it is put in a tundish bowl, where the liquid metal exits through a nozzle into a stream of water. Although all sizes of metal shot are created at all water pressures, larger particles are created with a lower water pressure. After the shot is formed, it is placed in a water bath to cool. After it cools, a large magnet picks up the shot and, after allowing it to drain for about six and a half minutes, it is placed in the dryer. After drying the shot, it is separated by size and placed in a collection barrel for the customer. When high carbon steel shot is created, it will pass through the grit process, where it is crushed to create a more angular product, which is usually used to shot clean highway bridges. The tundishes need to be treated with heat so that the bowl does not melt during the melting process. The facility does this in the bowl garage, which is located on the west end of the property.

The facility uses multiple baghouses to control emissions at both foundries as well as for the crushing process. The facility is in the process of replacing a baghouse with a cartridge dust collector. During this transition time, all emissions from the north and south foundry are passing through the same baghouse. The facility plans to update the malfunction abatement plan (MAP) once the dust collectors are installed and operating.

INSPECTION NARRATIVE

This inspection was preformed with Eric Grinstern (EGLE). Initially, we met with Mr. Marty Schendel, Vice President to discuss the purpose of the inspection as well as the process. This facility was inspected as part of a statewide initiative evaluating secondary metal processing facilities located in an Environmental Justice (EJ) area. This facility is located in an area having a limited English-Speaking population at or above the 75th percentile on a state-wide basis.

Next, we walked through the facility to observe the process. During the inspection we observed opacity coming from the baghouse associated with the north foundry. Mr. Schendel explained

that this baghouse was malfunctioning. We also observed that the pressure gauges measuring the across the fabric filters of the baghouses for both foundries as well as the grit process did not have an alarm as required in PTI 285-07.

APPLICABLE RULES/PERMIT CONDITIONS

The facility is exempt from 40 CFR 63 subpart ZZZZZ and Rule 949 because it does not meet the definition of a foundry since the molten metal is not poured into molds or casts. The facility is exempt from 40 CFR 63 subpart YYYYY and Rule 948 because the furnaces are not electric arc furnaces. The facility currently operates under permit 258-07, which was issued on October 31, 2007.

PERMIT 258-07

EUGRITPROCESS

1. Emission Limits – Compliance – PM10 emission limitations are to be determined by testing at the AQD's request. To date, the AQD has not requested testing. Absent testing, compliance is presumed based on the facility's compliance with the visible emission limit and the control equipment requirements.

2. Visible Emission limits. Compliance – During the onsite inspection, no visible emissions were observed from the baghouse associated with the grit process.

3. Equipment – Noncompliance – The facility failed to maintain the fabric collector with an alarm that sounds when the pressure drop exceeds five inches of water.

4. Stack/Vent Restriction – Compliance – All stacks were installed according to the required height and inside diameter. The stack was raised by twenty feet as part of a class action lawsuit about 8 years ago.

FGFOUNDRYNORTH

2.1 Emission Limits – Compliance – PM10 emission limitations are to be determined by testing at the AQD's request. To date, the AQD has not requested testing. Absent testing, compliance is presumed based on the facility's compliance with the visible emission limit and the control equipment requirements.

2.2 Visible Emission Limits – Noncompliance – Visible emissions were observed, and based on the readings taken by Eric Grinstern was at 35% on a 6-minute average which exceeds the permit limit.

2.3 Equipment – Noncompliance – During the onsite inspection it was observed that the duct work between a fan and the stack with the baghouse was disconnected. In addition, Mr. Schendel stated that the gauge for the pressure drop did not sound an alarm should the pressure drop exceed 5 inches of water.

2.4 Stack/Vent Restrictions – All stacks were installed according to the required height and inside diameter. The stacks have not been altered since they were initially installed.

FGFOUNDRYSOUTH

3.1 Emission Limits – Compliance – PM10 emission limitations are to be determined by testing at the AQD's request. To date, the AQD has not requested testing. Absent testing, compliance is presumed based on the facility's compliance with the visible emission limit and the control equipment requirements.

3.2 Visible Emission Limits – Compliance – No visible emissions were observed from the south foundry process during the onsite inspection.

3.3 Equipment – Noncompliance – During the onsite inspection, Mr. Schendel stated that the gauge for the pressure drop did not sound an alarm should the pressure drop exceed 5 inches of water.

3.4 Stack/Vent Restrictions – All stacks were installed according to the required height and inside diameter. The stacks have not been altered since it was installed.

FGFACILITY

4.1 Material Limits – Compliance – The facility preschedules all steel incoming to the facility so that most of the steel can be melted during the month. Attached to this report are the records showing the tons of scrap melted at the foundry. During the last 12 months a total of 38,265 tons was melted in both foundries, which is less than the permitted limit is 70,000 tons per year.

4.2 Material Limits – Compliance – Natural gas readings are recorded daily at noon. Monthly natural gas usage is recorded in a spreadsheet and is attached to this report. Mr. Schendel stated that this record represents all the natural gas readings at the plant. The records show that 58.553 million cubic feet NG used for the past 12 months, which is less than the permitted limit of 65 million cubic feet.

4.3 Process / Operational Limits – Compliance – The facility has a fugitive dust plan to control the dust. Usually once per year the facility treats the dirt roadways with calcium chloride. The majority of the lot is paved to help control fugitive dust. During the onsite inspection a permit modification was discuss since the facility is required to treat the roadways monthly and treatment is typically not necessary during the winter months.

4.4 Process / Operational Limits – Noncompliance —The facility is operating currently has a MAP. However, the facility was operating the FGFOUNDRYNORTH which the baghouse was not operational.

4.5 Recordkeeping / Reporting / Notification – Compliance – The facility collects monthly records for the natural gas usage, which show that the usages is less than the permitted limit.

4.6 Recordkeeping / Reporting / Notification – Compliance – The facility collects monthly records for the scrap metal collected, which show that the usage is less than the permitted limit.

MAERS REPORT REVIEW

This facility is exempt from submitting MAERS.

FINAL COMPLIANCE DETERMINATION

Metaltec Steel Abrasive does not appear to be operating in all permit conditions. Mr. Eric Grinstern will issue a VN to address the areas of noncompliance observed during the onsite inspection. These include the failure to maintain the fabric filter collector with alarm that sounds when the pressure drop exceeds 5 inches of water for EUGRITPROCESS, FGFOUNDRYNORTH, and FGFOUNRYSOUTH. The FGFOUNDRYNORTH furnace was operating without an operational baghouse. FGFACILITY failed to take appropriate corrective action procedures based on the MAP when the baghouse associated with FGFOUNDRYNORTH malfunctioned.

NAME _____ DATE 7/29/2024 SUPERVISOR JK