N1022
MANUAL

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

N102231252

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:** 08/25/2015
STAFF: Jill Zimmerman	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** Minor
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION	:	August 25, 2015
TIME OF INSPECTION	:	10:15 am
LEVEL OF INSPECTION	:	II
NAICS CODE	:	332999
EPA POLLUTANT CLASS	:	PM
INSPECTED BY	:	Jill Zimmerman
PERSONNEL PRESENT	:	Martin Schendel
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, which the majority 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 at this location for more than 15 years.

COMPLAINT/COMPLIANCE HISTORY

An odor complaint was received on November 7, 2014. I performed routine odor surveillance in the area and I have not verified the odors. No additional complaints have been received.

OUTSTANDING VNs

No violation notices (VN) have been issued since the last inspection, which was May 3, 2012.

PROCESS EQUIPMENT AND CONTROLS

Scrap metal is brought to the facility usually by truck. 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 can pass 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 pit, the strap 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. There are no emissions associated with this process.

The facility operates one baghouse for each foundry as well as two baghouses for the grit process. The bags in the baghouse are changed about once every eighteen months, or as needed should a problem be detected or should there be any visible emissions coming from the baghouse.

INSPECTION NARRATIVE

I arrived at the facility at 10:15 am and met with Mr. Schendel. It was determined that we would do the facility walk through at this time, but that I would come back on September 15, 2015 to discuss the process, and to gather records and other information.

We walked through the north foundry first. The operators were preparing to pour the liquid metal into the water stream. There are two furnaces that operate as part of the north foundry. The bags in the baghouse for this emission unit were all changed in July 2015. There is a cooling water collection pond near the north foundry. As needed, the sludge is removed from this pit and transported offsite. The sludge was recently removed, and many of the bags used to collect the sludge were onsite in roll-off boxes waiting to be transported offsite. During the onsite inspection, I was able to watch the molten metal be poured into the water stream. I did not observe any visible emissions from the baghouse associated with this emission unit.

Next we walked through the south foundry. The melting furnace was operating and melting the metal. The south foundry operates one furnace; otherwise this process is the same as the north foundry. After the shot is made, if it is high carbon, it travels to the grit process. The bags in the baghouse were last changed in December 2014. No visible emissions were observed during the inspection.

The grit process heat treats the shot and crushes it to achieve a product that can be used more abrasively. There are two baghouses associated with this emission unit. During the onsite inspection, this process was not operating. The baghouse associated with the south foundry was down for maintenance, so the emissions were being routed to a baghouse associated with the grit process.

On Tuesday September 15, 2015 at 1:30 pm I met with Mr. Marty Schendel to discuss the records and other permit requirements.

APPLICABLE RULES/PERMIT CONDITIONS

The facility is exempt from 40 cfr 63 subpart ZZZZZ because it does not meet the definition of a foundry since the molten metal is not poured into molds or casts. The facility currently operates under permit 258-07, which was issued on October 31, 2007.

PERMIT 258-07
EUGRITPROCESS
1.1 Emission Limits – Compliance is shown through static testing at AQD's request. To date, AQD has not requested such testing.

1.2 Visible Emission limits. Compliance – During the onsite inspection, this emission unit was not operating. Therefore, no visible emissions were observed.
1.3 Equipment – Compliance – The facility operates the baghouse such that should the pressure drop move out of the desired operating range, a blow down is initiated. If this does not correct the problem, the baghouse pulls the air from the other equipment in the facility, which causes this equipment to shut down.
1.4 Stack/Vent Restriction – Compliance – All stacks at the plant were installed according to the required height and inside diameter. In 2012 this stack was raised twenty feet above the permitted limit.

FGFOUNDRYNORTH
2.1 Emission Limits – Compliance is shown through static testing at AQD's request. To date, AQD has not requested such testing.
2.2 Visible Emission Limits – No visible emissions were observed from the north foundry process during the onsite inspection.
2.3 Equipment – Compliance – The facility operates the baghouse such that should the pressure drop move out of the desired operating range, a blow down is initiated. If this does not correct the problem, the baghouse pulls the air from the other equipment in the facility, which causes this equipment to shut down.
2.4 Stack/Vent Restrictions – All stacks a the plant were installed according to the required height and inside diameter. This stack has not been altered since they were initially installed.

FGFOUNDRYSOUTH
3.1 Emission Limits – Compliance is shown through static testing at AQD's request. To date, AQD has not requested such testing.
3.2 Visible Emission Limits – No visible emissions were observed from the south foundry process during the onsite inspection.
3.3 Equipment – Compliance – The facility operates the baghouse such that should the pressure drop move out of the desired operating range, a blow down is initiated. If this does not correct the problem, the baghouse pulls the air from the other equipment in the facility, which causes this equipment to shut down.
3.4 Stack/Vent Restrictions – All stacks at the plant were installed according to the required height and inside diameter. This stack has not been altered since it was installed.

FGFACILITY
4.1 Material Limits – Compliance – During the past year, the facility used less than 5,000 tons of scrap per month, and less than 43,000 ton in the past year, which is less than the permitted limit of 70,000 tons per year.
4.2 Material Limits – Compliance – During the past year, the facility used less than 5.5 million cubic feet of natural gas per month and less than 49 million cubic feet of natural gas in the past year, which is less than the permitted limit of 65 million cubic feet per year.
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 last treatment was on September 16, 2015. No trackout was observed onto Joy Road.
4.4 Compliance —The facility is operating under the current MAP. There were no upsets observed that would require any changes made to the MAP at this time.
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 appears to be operating in compliance with all state and federal regulation as well as all permit conditions. Based on the permit evaluation form that was completed during the permitting process, this facility is considered a minor source.

NAME Jill C Zimmer DATE 9/28/15 SUPERVISOR JK