

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

N134062310

<b>FACILITY:</b> Portland Iron & Metal Inc		<b>SRN / ID:</b> N1340
<b>LOCATION:</b> 3130 Knoll Rd PO Box 454, PORTLAND		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> PORTLAND		<b>COUNTY:</b> IONIA
<b>CONTACT:</b> Jaime Fox , GM		<b>ACTIVITY DATE:</b> 03/25/2022
<b>STAFF:</b> Eric Grinstern	<b>COMPLIANCE STATUS:</b> Non Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Unannounced on-site inspection		
<b>RESOLVED COMPLAINTS:</b>		

## FACILITY DESCRIPTION

Portland Iron and Metal is a metal recycling facility located in a rural area of Ionia County, southwest of the city of Portland. The facility recycles both ferrous and non-ferrous metals. The facility has two scrap metal processors (shredders) on-site, a scrap metal shredder that shreds white goods, car parts, construction material, etc. and a second shredder that is used to further process aluminum scrap from the primary shredder. The facility does not shred whole automobiles.

## REGULATORY OVERVIEW

The facility is categorized as a minor source that currently holds two permits, PTI No. 381-98 for the scrap metal shredder, and PTI No. 2-15 for the aluminum shredder. The facility is currently not subject to any federal NSPS or NESHAP standards. No other processes at the facility appear to require air use permits.

## COMPLIANCE EVALUATION

Prior to entering the facility no opacity or odors were noted while observing the facility from the public roadway. At the facility staff met with Jaime Fox, General Manager. The shredders were not operating at the time of the inspection. The eddy current on the scrap metal shredder is broke and the wait period for the parts is 26 weeks. Since aluminum processed in the aluminum shredder is derived from the scrap metal shredder, material is not available for operating that unit.

### Permit to Install No. 381-98

#### Scrap Shredder

The shredder has the following process flow: shredder > Z-Box > magnet drum > (ferrous is separated out) non-ferrous > trammel > eddy current > shaker > cross belt.

The shredder has an emission limit of 0.08 pound per 1,000 pounds of exhaust gases. Verification of the emission limit would require emissions testing, which has not been requested. Compliance is

assumed based upon proper operation of the shredder and control equipment. The shredder itself has water spray control and cyclone and the Z-Box is controlled by a cyclone.

The permit requires the "Scrap Metal Processor" to have a cyclone collector installed and operating properly. The cyclone collector controls emissions from the Z-box and shredder. Particulate emissions at the shredder itself are controlled with water spray. Review of the permit engineer's notes for PTI No. 381-98 do not provide any details regarding control of the actual shredder. Discussion of the cyclone collector is associated with the Z-Box.

During the previous inspection, staff observed a duct extending from the shredder towards the cyclone. Further review of the permit application shows drawings with a duct from the shredder to the cyclone. The permit application does not discuss or provide detail regarding the duct. Subsequent discussion with the facility determined that the duct was installed and subsequently taken out of service because it was plugging up. Although the permit is not clear regarding control of the shredder itself, the drawings provided by the facility in the application contain the duct from the shredder to the cyclone. A VN was issued on February 28, 2020, for failure to properly maintain the duct from the shredder to the cyclone. During this inspection, staff observed that the duct had been reconnected from the shredder to the cyclone.

Additionally, in regard to operation of the cyclone, the permit states that the scrap metal processor shall not operate unless the cyclone is installed and operating properly. This potentially contradicts the fact that the facility does not operate the cyclone when they are processing clean scrap that the facility's application states is free of contaminants that are able to be removed by the cyclone. The permit engineer documented that the cyclone system is not run all the time when chrome and black clip steel are processed, since they are free of fluff. It is possible that operating properly was interpreted as not operating the cyclone when certain scrap was being processed. If the permit is modified in the future, alternative operating scenarios should be defined.

The facility is prohibited from processing asbestos tailing or asbestos containing waste material in the shredder. Mr. Fox stated that they do not process such material.

The facility is required to implement and maintain a fugitive dust plan, which has previously been reviewed. Mr. Fox stated that they have the county road brined, at which time they have the roads in the yard brined. During the inspection the yard road was very wet due to recent rains.

The facility is required to have an exhaust stack with maximum diameter of 36 inches and a minimum exit point of 58 feet above ground level. The stack listed in the permit and permit application was associated with the cyclone associated with the Z-box. Prior to installation, the cyclone specifications had a stack. As installed and operated, the cyclone is a closed loop system without an exhaust point. Since the last inspection, the facility has installed a stack meeting the stack dimensions in the permit. If the system is exhausted, it will be through the stack.

### **Permit to Install No. 2-15**

#### **Aluminum Shredder - EUGRUNDLER**

The aluminum shredder has an emission limit of 0.1 pound per 1,000 pounds of exhaust gases. Verification of the emission limit would require emissions testing, which has not been

requested. Compliance is assumed based upon proper operation of the shredder and control equipment. During the inspection the cyclone and baghouse were observed to be installed.

EUGRUNDLER is required to be installed in an enclosed building. Review of the permit engineer's evaluation notes show that the emission unit was proposed by the facility to be installed in an enclosed building. The permit was evaluated with the assumption that the baghouse and any fugitive emissions would be vented internally. Additionally, it was assumed that any emissions would be a minimal amount escaping from doors and windows. During the inspection it was observed that the process is installed in a building that is enclosed on three sides with a roof. The west end of the building is open, and the shredder is located outside of the building. The mag unit, eddy current, cyclone and baghouse are located inside the building. A Violation Notice will be issued for failing to install the emission unit inside an enclosure.

The shredder currently controls emissions by capturing emissions from below the shredder. Emissions are ducted to a cyclone and baghouse. The concerns of potential excessive emissions during the feeding of scrap into the shredder was discussed. The facility has mentioned interest in using a hood over the top of the shredder and using a conveyor to feed scrap to the shredder. Scrap is currently fed to the shredder with a front-end loader. Staff encouraged the facility to pursue the emission capture upgrade.

The shredder is limited to 24,400,000 pounds of material produced per 12-month time period. Review of the facility's records while on-site showed that they were well below the throughput limit. For the month of January 2022, the facility processed approximately 96,000 pounds.

The facility is also prohibited from processing asbestos tailing or asbestos containing waste material in the shredder. Mr. Fox stated that they do not process such material.

The facility is required to implement and maintain a fugitive dust plan, which has previously been reviewed. Mr. Fox stated that they have the county road brined, at which time they have the roads in the yard brined. During the inspection the yard road was very wet due to recent rains.

## Conclusion

Based on the information and observations made during this inspection, the facility is in compliance with applicable air quality rules and regulations, with the exception of failing to install EUGRUNDLER in an enclosure as required by PTI No 2-15. A Violation Notice will be issued to address the violation.

NAME Eric Grinstern

DATE 03/30/2022

SUPERVISOR HH