

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

B609527939

FACILITY: Enterprise Iron & Metal Company		SRN / ID: B6095
LOCATION: 850 PANNELL NW, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: John Green		ACTIVITY DATE: 12/05/2014
STAFF: Eric Grinstern	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Compliance inspection		
RESOLVED COMPLAINTS:		

Inspection of Enterprise Iron & Metal Company.

Prior to entering the facility a survey of the parameter was made. No opacity or odors were noted.

At the facility EG met with John Green, Supervisor.

**FACILITY BACKGROUND**

The facility is a metals processing plant that handles ferrous and non-ferrous metals. The facility processes metals from commercial/industrial sources as well as street trade. Aluminum scrap is processed through a sweat furnace and sold as sows. The facility is currently conducting some toll processing of engine block aluminum.

**REGULATORY REVIEW**

The primary emission unit of interest at the facility is an aluminum sweat furnace that is subject to Subpart RRR. The sweat furnace, which is controlled by an afterburner, is permitted under PTI No. 168-12A. (Since the inspection the permit has been modified - No.168-12B) The modification removed mention of flux usage and allows for throughput tracking based on aluminum output as opposed to charge weight.

**COMPLIANCE EVALUATION**

Permit to Install No. 168-12A

**EU-AL-SWEAT** – Natural Gas-fired sweat furnace

**Emission/Material Limits**

EU-AL-SWEAT restricts the emission of particulate. (PM, PM10, PM2.5)

Compliance with the particulate limit is demonstrated through proper operation of the afterburner as well the requirement to test if requested by AQD.

Status: Compliant

Flux usage is restricted to cover flux. The facility stated that they have not used any flux in the furnace and currently do not have any plans for flux usage. Mr. Green showed staff a small unopened bag of flux that was given to them as a sample.

Status: Compliant

**Monitoring/Recordkeeping**

The permit requires the facility to maintain a current listing from the manufacturer of flux composition.

The facility is not currently using flux.

Status: Compliant

The facility is required to keep a daily log of the type and amount of scrap metal and flux used per batch.

The facility does not use flux. The facility is currently basing charge amounts on percent yield of furnace output. Staff requested the facility provide a better description of scrap charged and weight amounts. Primary basis for this condition is to demonstrate compliance with pounds of cover flux per ton of metal charged limit; however, the facility is not using cover flux.

Update: Since the inspection the facility requested and received a permit modification removing flux usage from the permit and allowing for metal throughput to be tracked via processed aluminum as opposed to charged weight.

**Stack/Vent Restrictions**

Requires a stack with a maximum diameter of 24 inches and a minimum height of 30 feet.

Visual observation of the stack showed that it appeared to meet the required dimensions.

Status: Compliant

**Secondary Aluminum Production NESHAP – Subpart RRR**

The facility's aluminum sweat furnace is subject to Subpart RRR.

Area source sweat furnaces are only subject to dioxin/furan emission limits under the NESHAP, as well as Process/Operational, Design/Equipment Parameters and Monitoring/Recordkeeping requirements.

**Subpart RRR  
Notification and Reporting Requirements**

Requirement	Citation 40 CFR	Notification Submitted		Comments
		Yes	No	
Initial Notification (Existing – July 21, 2000) (New – July 21, 2000 or no later than 120 days after startup)	63.9(b)(2)	X		Notification submitted
Notification of Compliance Status (Existing-May 23, 2003) (New – 90 days after performance test or 90 days after startup if not conducting a performance test.)	63.1515(b)	X		Notification submitted
OM&M Plan (Existing-March 24, 2003) (New – 90 days after performance test or	63.1510(b)	X		Notification submitted

90 days after startup if not conducting a performance test.)				
Excess Emissions/Summary Reports (Semi-annually – 60 days after calendar half – 3/1 & 8/30) <u>Must submit even if no excess emissions occurred</u>	63.1516(b)	X		Reports submitted
Annual Compliance Certification (With one of the semi-annual reports) <u>Must submit</u>	63.1516(b),(c)			Rule is unclear that areas sources need to submit annual certifications. EPA clarifying in amendments. Non-submittal not considered a violation at this time.
SSM Reports (30 days after calendar half when a SSM occurred – 1/30 & 7/30) <u>Must submit if a SSM occurred</u>	63.10(d)(5)(i)	X		Reports submitted
Report of actions inconsistent with SSM Plan (2 working days after event –phone report, 7 working days after event – letter report)	63.6(e)(3)(iv) 63.10(d)(5)(ii)			NA

### D/F Limit

Sweat furnaces are not required to conduct performance testing to demonstrate compliance with the D/F limit if they are equipped with an afterburner with a minimum temperature of 1600 degrees and a residence time of 0.5 seconds. The facility is using the afterburner alternative as a compliance option.

Status: Compliant

### Capture/Collection System

Capture system to meet ACGIH. §63.1506(c)(1), To access this document see §63.1502  
Vent through closed system except for dilution air to control baghouse temperature. §63.1506(c)  
(2)

Operate according to OM&M plan. §63.1506(c)(3)

Inspect and record the results of once each calendar year. §63.1510(d)(2)

As required by 63.1506(c), the facility is required to design and install a capture and collection system that meets the engineering standards published by ACGIH in Chapters 3 and 5. Section 63.1515(b)(5) requires the facility to provide design information and analysis, with supporting documentation demonstrating conformance with the capture/collection system requirements.

The facility supplied a copy of Method 1-4 testing conducted to determine capture system flow rate. The facility also provided a copy of a heat and material balance document provided by the afterburner manufacturer. This document does not appear to provide a comparison to determine if the system is in conformance with ACGIH recommendations.

The facility's consultant expressed concern about the ability to use Chapters 3 & 5 of the ventilation manual for an enclosed system like the sweat furnace. Additionally, in EPA's proposed amendments to the NESHAP dated December 8, 2014, they are proposing an alternative compliance option for sweat furnaces that allows for the demonstration of negative air flow into the furnace.

### Process/Operational Limits

The facility is required to submit a MAP and O&M plan for the control equipment.

The facility has supplied a MAP and O&M plan.

Status: Compliant

### Design/Equipment Parameters

Requires the afterburner to be maintained at 1600 degrees F, based 15 minute block averages used to calculate the average temperature for each 3-hour block average.

The facility is maintaining records of the continuous (15 second) readings of temperature.

As reported in the facility's Excess Emissions/Summary Report and SSM Report received on August 25, 2014, the facility reported deviations of the minimum temperature of 1600 degrees when the unit first started operation.

Staff informed the facility that they need to address maintaining temperature records in 15-minute and 3-hour averages.

Staff requested that the facility provided temperature records in 15-minute and 3-hour averages. Due to the effort on the facility's part to provide the records of the temperature averages, the records were not provided until March 11, 2015. Review of the records showed that the 3-hour temperature average dropped below the NESHAP required 1600 degrees 23 times from February 2014 through May 2014.

**Conclusion**

**A violation notice will be issued for the temperature deviations associated with the afterburner.**

NAME 

DATE 3/12/15

SUPERVISOR 

