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

B228149382

FACILITY: Omnisource Corporation		SRN / ID: B2281
LOCATION: 701 LEWIS ST, JACKSON		DISTRICT: Jackson
CITY: JACKSON		COUNTY: JACKSON
CONTACT: C. Kevin Gross , Safety/Environmental Manager		ACTIVITY DATE: 07/03/2019
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scrap yard inspection. New torch cutting enclosure.		
RESOLVED COMPLAINTS:		

Minor Source-

Facility Contacts

Kevin Gross-Safety/Environmental Manager & Doug McDonald – Plant Manager

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Website: http://www.omnisource.com/

Purpose

On July 3, 2019, I conducted an unannounced compliance inspection of OmniSource (Company) located in Jackson, Michigan in Jackson County. I was accompanied by Scott Miller and Stephanie Weems both whom are with the Jackson District Office. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules and their Permit to Install (PTI) # 93-04A which was issued on January 6, 2005.

Facility Location

The facility is surrounded by commercial and industrial facilities on all sides, except for on the west and the southwest side, which consists of residential and church buildings.

Facility Background

OmniSource (previously Jackson Iron and Metal until 2004) is a large metal recycler located within the city of Jackson. According to the U.S. Environmental Protection Agency (EPA), this facility is classified as a minor air pollution source. It was last inspected on 3/19/2018.

Metal emission stack testing was last conducted on December 14-15, 2005. Mercury was tested to be 0.008 lbs/hour (.02 limit), manganese was 0.001 lbs/hour (0.01 limit), lead was 0.001 lbs/hour (0.06 limit), nickel at 0.0001 lbs/hour (0.006 limit), cadmium at 0.0005 lbs/hour (0.002 limit), chromium at 0.0002 lbs/hour (0.02 limit) and copper at 0.0006 lbs/hour (0.03 limit). PM was found to be 2.4 lbs/hour (11.25 lbs/hour limit).

Emission Unit ID	Emission Unit Description	Stack Identification
EU-SHREDDER	Scrap metal shredder with a cyclone and venturi scrubber air pollution control (APC) system, a magnetic (drum magnet) ferrous separation process, a closed-loop single air cascade system (z-box) with a cyclone, oscillators, eddy current separators, nonmagnetic materials separation, associated conveyors, material storage, and all associated process activities including but not limited to management of waste materials associated with the shredding operations.	SV-SHREDDER
Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.		

Emission Unit / Flexible Group Details

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FG-SHREDDERAPC	Cyclone and venture scrubber in series to control emissions from the shredder portion of EU-SHREDDER.	SV-SHREDDER
FG-ZBOXAPC	A closed-loop cyclone to control emissions from the single air cascade system (z-box) portion of EU-SHREDDER.	N.A.

Regulatory Applicability

PTI 93-04A covers the entire facility.

The source is also subject to 40 CFR Part 61, Subpart M, which requires that the facility not process any asbestos tailing or waste materials containing asbestos.

Torch cutting operations at the facility are no longer exempt from PTI requirements as outlined in letter that was sent to the Company in June:

"Dear Scrap Metal Recycling Owner,

On December 20, 2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), finalized changes to Part 2 of the Michigan Air Pollution Control Rules. Specifically, Rule 336.1285(j) was amended, which pertains to portable torch cutting. Rules 336.1278 through 336.1290 were established to exempt insignificant sources of air pollution from having to obtain a permit to install.

The amended Rule 336.1285(2)(j) states that the requirement of Rule 336.1201(1) to obtain a permit to install (PTI) does not apply to any of the following:

(j) Portable torch cutting equipment that does not cause a nuisance or adversely impact surrounding areas and is used for either of the following:

(i) Activities performed on a non-production basis, such as maintenance, repair, and dismantling.

(ii) Scrap metal recycling and/or demolition activities that have emissions that are released only into the general in-plant environment and/or that have externally vented emissions equipped with an appropriately designed and operated enclosure and fabric filter.

As with all AQD permit exemptions, eligibility is based on any owner or operator's ability to provide a demonstration that the process equipment meets the requirements of the exemption. In the future if your facility is unable to successfully demonstrate that it meets the requirements of an applicable exemption, you may be required to obtain a PTI for continued operation of the process equipment.

Complaints that are received by the AQD that are attributed to torching activities will be investigated by district staff and evaluated for compliance with opacity limitations under Rule 336.1301(1) and the nuisance provision of Rule 336.1901. This letter is intended to create awareness of this new requirement and to initiate discussion regarding any questions you may have."

Arrival & Facility Contact

Visible emissions from torch cutting were observed upon our approach to the Company's facility. We arrived at 9:00 AM, proceeded to the facility office to request access for an inspection, provided my identification and spoke with Doug McDonald (DM) the plant manager. We informed them of our intent to conduct a facility inspection and to review the various records as necessary.

DM extended his full cooperation and fully addressed my questions.

Pre-Inspection Meeting

DM outlined that the plant is operating generally between 7 am to 4 pm M-F with occasional work Saturday morning. Truck drivers might arrive as early as 2 am. Shredding is generally done between 7 am and 3 pm. Torch cutting is done from 6 am to 2 pm.

There are currently 75 employees.

We discussed the new torching cutting enclosure. They began testing the $500K enclosure around the beginning of June and hope to have it fully operational in another month.

I requested various records required by the PTI which were provided to me at that time or at the end of inspection. (See Recordkeeping/Permit Requirements Review section.)

Onsite Inspection

DM gave us a tour of the facility.

We first visited the north east portion of the facility property to observe the torch cutting operations.

See attached photos. The design is similar to the OmniSource facility in Bay City. The enclosure moves back and forth on two sets of train tracks and is controlled by a 40,000 cfm cartridge style duct collector.(It showed 4" H20 pressure drop across the collector.) A crane is used to deposit/pick up scrap metal from the ground at two adjacent locations with the enclosure moving back and forth between the two so that scrap metal is staged in one section while torch cutting is being conducted in the other.

The enclosure can have house 2 torch cutting operators working simultaneously at the same time equipped with cartridge style full face respirators.

Overall, the system appeared to be working quite well. We did note some opacity leaking out in a couple locations where the roof corners met the top of the outside walls and through some open space next to some of the flexible curtains adjacent to the where the train wheels are located. The Company intends to fix the leaks which maybe in part caused by a lack of uniform air flow into the dust collector system. The vender will be coming out soon to balance out the flow.

Next we visited the depollution area. It is where they process vehicles prior to entering the shredder. Freon, engine oil, gasoline were drained and captured, and mercury switches, batteries, etc. were being removed per various permit requirements. Inspected and depolluted scrap was then placed in a stock pile. (Process cars are spray painted with red.) Approximately 250 to 300 cars processed per month, at this facility and the shredder can process a whole car at a time. (Buses/trucks can also be processed but generally need to be cut up some before entering the shredder.) Mercury switches in vehicles are still being discovered and removed almost every business day. Mercury is also being found in electrical equipment/switches. See attached photo. One of the photos shows a waste drum labeled radioactive. Scrap metal that enters the facility enters via one of two ferrous material scales equipped with a radiation detector. If above 4 to 5 micro rads, the facility follows a certain protocol on handling this scrap. The gasoline tanks are being left on the vehicles that enter the shredder but it appears the process used to empty the tanks of gasoline is adequate to ensure that no gasoline goes through the shredder.

The shredder and associated equipment were not operating during the inspection and so were not inspected during this visit.

Recordkeeping/Permit Requirements Review

I asked for records that show daily operating hours, tons of material processed each day, required daily pressure drop readings, liquid flow rates for 2019. The records showed compliance. See Attachment (1).

The highest tons processed in 2019 was 1222 tons on 5/8. (Limit 1,300 per day.) They are recording both pressure drop and liquid flow rate for the wet scrubber that controls the shredder.

The Company appears to be compliance with all other conditions of the Permit. (Note: Since the shredder and associated pollution control equipment was not in operation during the inspection, a number of permit conditions could not be verified.)

Post-Inspection Meeting

No post inspection meeting was held. We thanked both gentlemen for their time and cooperation, and we departed the facility at approximately 10:00 AM.

Compliance Summary

The Company is in compliance with their air permit.

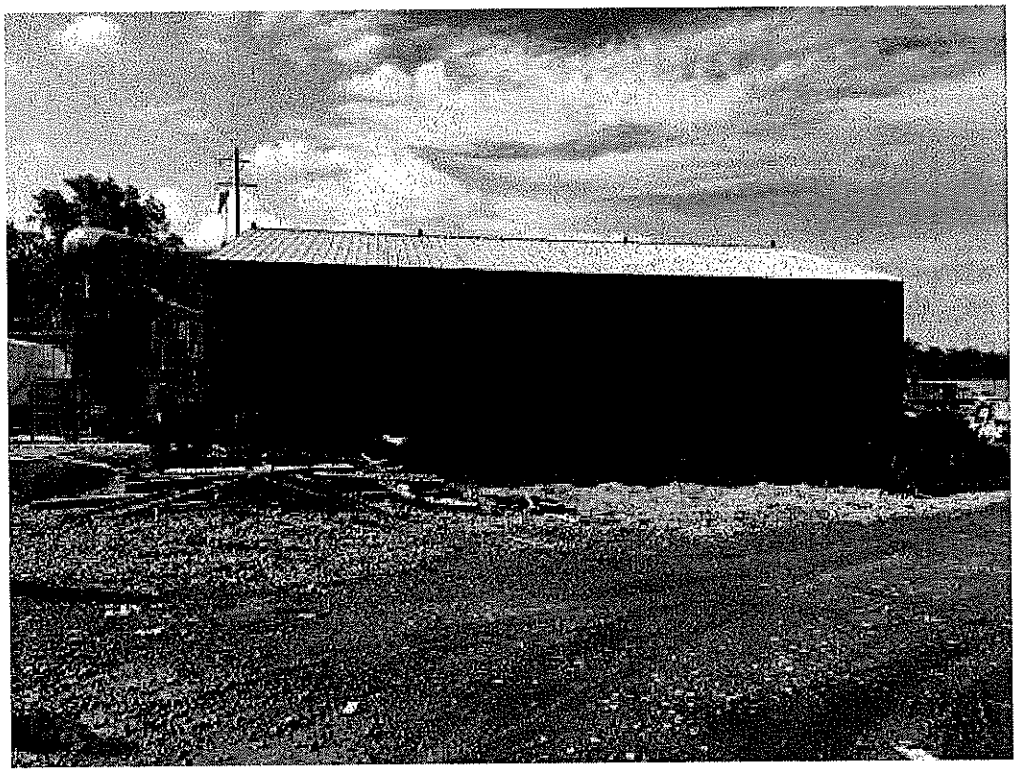

Image 1(Torch Enclosure) : Torch cutting enclosure.

Image 2(Torch Cutting) : Torch cutting enclosure.

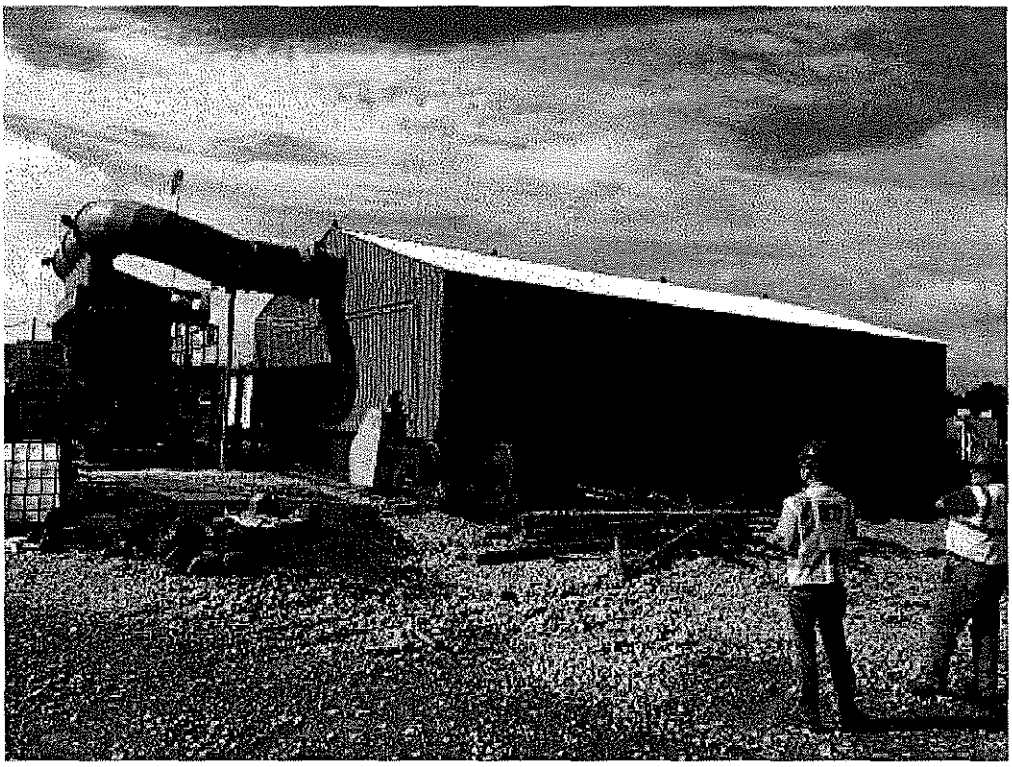

Image 3(Torch cutting) : Torch cutting enclosure.

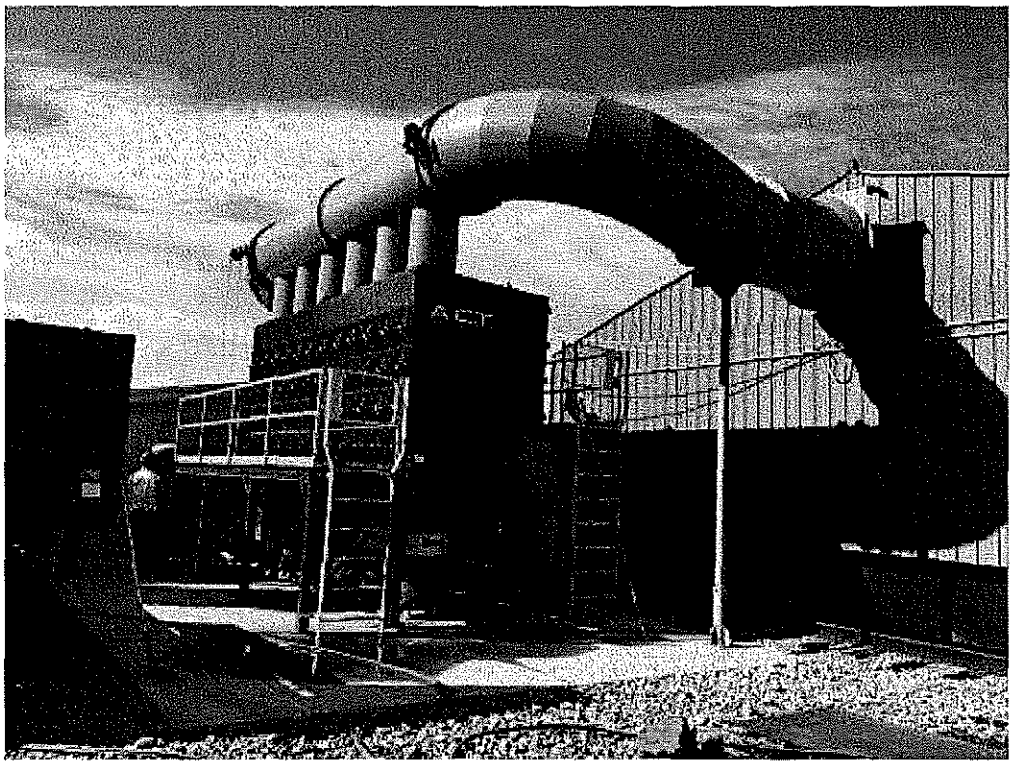

Image 4(Dust collector) : Cartridge dust collector

Image 5(Inside enclosure) : Inside torch cutting enclosure.

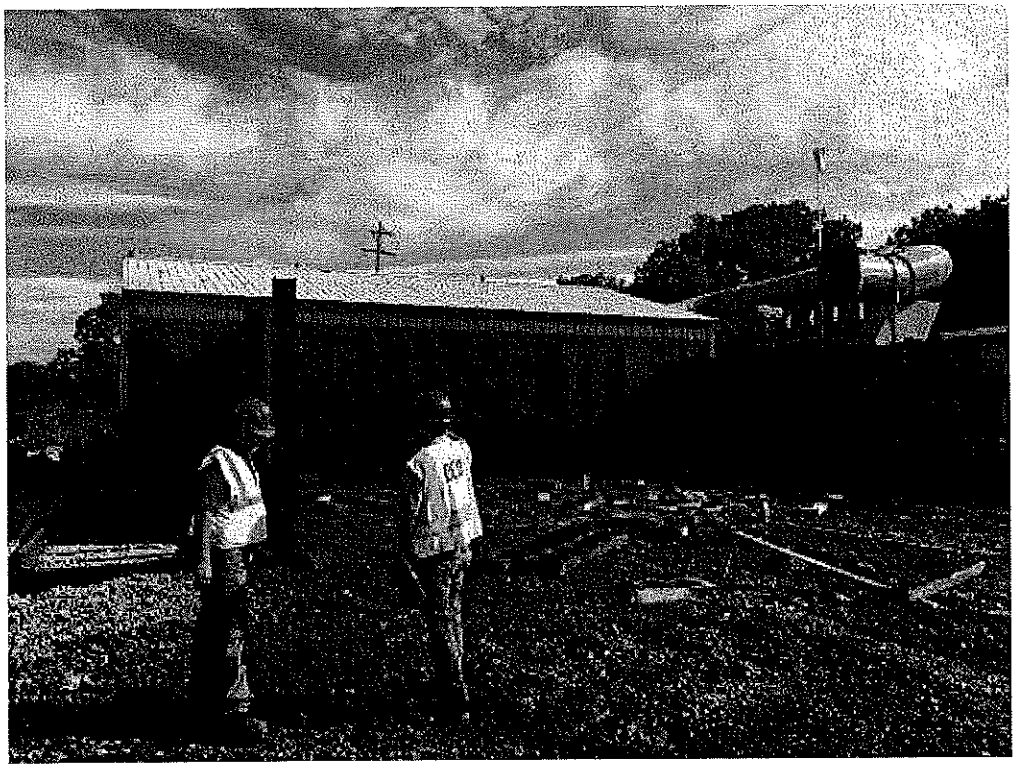

Image 6(Torch cutting) : Torch cutting enclosure.

NAME M. Kovalchuck DATE 7/15/19 SUPERVISOR