

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

N682330243

FACILITY: Fritz Enterprises of Flint		SRN / ID: N6823
LOCATION: 5032 N Dort Hwy, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Joseph Arvay , Vice President		ACTIVITY DATE: 07/16/2015
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, self-initiated inspection.		
RESOLVED COMPLAINTS:		

On 7/16/2015, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, self-initiated inspection of Fritz Enterprises of Flint, which was formerly known as Spooner Metals.

Environmental contact:

Joseph H. Arvay, Vice President; 734-283-7272; joearvay@fritzinc.com

Jim Kuzma, Plant Manager; 734-283-7272; jimkuzma@fritzinc.com

Facility description:

This is a metal recycling facility, which specializes in autos and appliances.

Emission units:

Emission Unit or Flexible Group	Description	Permit to Install No.	Compliance Status
EU-SHREDDER	A scrap metal shredder equipped with a Smart Water Injection System	92-00B	Compliance
EU-ZBOX	"Picker shack," a metal separation process with a cyclone and wet scrubber	92-00B	Compliance
FG-SHREDDEROP	EU-SHREDDER, EU-ZBOX, magnetic drum and material handling and storage	92-00B	Compliance

Regulatory overview:

This facility is considered a true minor source. A major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. Criteria pollutants are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is considered a minor or "area source" for Hazardous Air Pollutants (HAPs), because it is not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

This facility is regulated by Permit to Install (PTI) No. 92-00B. The criteria pollutants of concern are particulate matter, and to a lesser degree, lead. The air toxics of concern are mercury, chromium VI, manganese, cadmium, copper, and nickel.

The original PTI, issued to S & S Metal Processing in 2000, was considered controversial, and both public comment periods and a public hearing were held. An Environmental Justice complaint was filed with the EPA Office of Civil Rights on 6/25/2001, by the Sugar Law Center. On 6/23/2006, the complaint was finalized. The DEQ was found to have taken the appropriate steps.

The current PTI, No. 92-00B, was issued on 2/15/2011. This permit revision allowed for replacement controls, following an explosion which damaged the scrubber.

9/25/2015

Fee status:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The source is located on the north side of Flint, some distance north of I-69. The surrounding area is primarily industrial and commercial. Residential areas are to the northeast and northwest at a distance of over half a mile. The Flint River is to the east at a distance of approximately half a mile.

Recent history:

S & S Metals Processing became Spooner Metals, LLC, some years ago. Fritz Enterprises, Inc. (FEI) subsequently purchased Spooner Metals, LLC. Fritz Enterprises of Flint is a wholly owned subsidiary of FEI, according to their website. Other than the Environmental Justice complaint and associated documentation, I could not find any record of AQD receiving air pollution complaints about an emission episode at this facility, since a 4/9/1997 complaint of a fire at the site. That complaint was primarily concerned with surface water impacts, from water run-off.

Stack testing:

A stack test was required and conducted on 7/5-6/2011. The test results are listed in the table below:

Pollutant	Limit	Test results
PM	0.05 lbs/1,000 lbs of exhaust gases, calculated on a dry gas basis	0.0006 lbs/1,000 lbs of exhaust gas, calculated on a dry gas basis
PM10	4.5 lbs/hr	0.098 lbs/hr
Mercury	0.0022 lbs/hr	0.000007 lbs/hr
Chromium VI	0.00029 lbs/hr	0.000007 lbs/hr
Lead	0.003 lbs/hr	0.0002 lbs/hr
Manganese	0.0023 lbs/hr	0.0002 lbs/hr

Arrival:

Prior to arrival, I drove past the site on Dort Highway, and detected no visible emissions, nor odors. Weather conditions were 90 degrees F, and sunny, with winds out of the south, or south southwest. Upon arrival, at 1:23 PM, I detected a light petroleum odor, but I could not tell if the odor was coming from this site, or an adjacent site. I went to the raised platform security tower at the main gate. I checked in with Mr. Dennis Weaver, scale operator. I was introduced to Mr. Joseph Arvay, Vice President, and Mr. Jim Kuzma, Plant Manager. I provided my identification/credentials, and a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedures.

I was informed that business has been slow lately, due to the price of steel being low on the commodities market.

Inspection:

Autos or appliances to be recycled are either delivered to a preprocessing area located to the north, or are delivered preprocessed, from certified suppliers directly to the recycle yard. Preprocessing requires the removal of all fluids, CFCs, mercury switches, and batteries. The cars are shredded and the ferrous metals are removed by magnets. "Fluff," or nonmetallic materials are separated and landfilled.

Nonferrous metals are brokered, to be further recycled.

Mr. Kuzma accompanied me throughout the facility during the inspection.

I observed that there was no road dust, from the unpaved roadways, which were damp. I was informed that they utilize a water truck with a 10,000 gallon tank, for watering roadways. It has been an unusually wet summer, so they have not needed to use the water truck as often, Mr. Kuzma explained.

EU-SHREDDER; PTI No. 92-00B:

The shredder intake has mats suspended by it, as a way to block any flying objects that might be thrown out of the shredder. A water mist is used by the shredder for dust control, and to keep the machine cool. I was informed that the public has sometimes mistaken the sight of the water mist as smoke or dust. Water dripped off the conveyor which exited the shredder, giving me an impression of how much water was being supplied to the unit.

A rotating drum has a magnet to remove metal, it was explained, and dirt and fluff drop out. It is my understanding that these are sent to another Fritz Enterprises site to remove copper and aluminum.

The Smart Water Injection System was operational during the inspection. The shredder motor current is monitored and the rate of water injected increases as the motor works harder. Motor current is monitored in milliamps, the water injection pressure in pounds per square inch, and the water flow in gallons per second. However, the touch screen for the device was down, because of a problem with the AC drive, and they were running it manually. A reading could still be obtained, by an analog gauge on the electronic cabinet for the equipment. They were feeding extra water to the scrubber, to ensure that it operates properly.

Motor amps are usually 200 for idling, normal operating conditions 200-250 amps, with 300 amps representing busy normal conditions, and 400 representing a heavy load. I was informed.

The replacement part for the AC drive was onsite, which Mr. Kuzma showed me later, back in their office. I was informed that it will be installed this weekend (today was Thursday, 7/16), so the touch screen will soon be functional again.

The shredder includes a large hopper. Part of the shredder is hooded and ducted to the northern of two cyclones which both exhaust to a shared wet scrubber tower. The southern scrubber is associated with EU-ZBOX.

There was generally 0% opacity from the scrubber. Periodically, opacity appeared to rise to 5%. In rare instances, a small piece of silvery foil or paper, about 1 inch square, would emerge from the scrubber stack, and flutter downwards, landing nearby. Weather conditions today were 90 degrees F and sunny, and no steam plume was detectable from the scrubber.

EU-ZBOX, PTI No. 92-00B:

In the Zbox, or "picker booth," copper and rubber are manually sorted out of the material stream. Two separate cyclones each exhaust to the single wet scrubber tower. The south cyclone is connected to the ZBox and the north cyclone to the Shredder. Material was conveyed from the bottoms of the cyclones to drop into a three sided bunker for storage.

FG-SHREDDEROP, PTI No. 92-00B:

The metal separation system consists of a long conveyor and large magnetic field that removes recyclable metal from the fluff. Fluff is basically all the non-recyclable material material that is collected at the facility. The fluff is used as cover in landfills.

Fritz Enterprises has a written plan to minimize the inclusion of undesired materials in the processing.

Facility recordkeeping:

Mr. Dennis Weaver, the scale operator, provided copies of recent visible emissions readings performed onsite (please see attached). The records indicate that he is a certified visible emissions reader, certified by ETA. The records were from 7/7 through 7/15/2015. I calculated 6-minute averages for their readings, and the highest 6-minute average result I obtained was 7.5% opacity. The lowest 6-minute average reading was 5.2%. These are in compliance with the permit limit of 10% opacity.

The shredder has run only in June and July this year. Production records for June indicated average operation of 33.85 tons of scrap metal per hour, 166.92 tons per day, and 2,837.64 tons for the month, over the 17 days during which they operated. They appear to be below the permitted limits, which are 60 tons of scrap metal per hour, 750 tons per day, and 195,000 tons annually.

While writing this activity report, I e-mailed the company, to ask for examples of recordkeeping which document the removal of mercury and other undesirable materials from autos or appliances to be processed. These records will be entered into the plant file as an attachment to this activity report.

Conclusion:

I did not find any instances of noncompliance with PTI No. 92-00B, or the Michigan Air Pollution Control Rules. I left the site at 2:43 PM.

NAME  DATE 9/25/2015 SUPERVISOR 