

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

N682354143

<b>FACILITY:</b> Fritz Enterprises of Flint		<b>SRN / ID:</b> N6823
<b>LOCATION:</b> 5032 N Dort Hwy, FLINT		<b>DISTRICT:</b> Lansing
<b>CITY:</b> FLINT		<b>COUNTY:</b> GENESEE
<b>CONTACT:</b> Joseph Arvay , Vice President		<b>ACTIVITY DATE:</b> 07/08/2020
<b>STAFF:</b> Daniel McGeen	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Inspection, under COVID-19 procedures.		
<b>RESOLVED COMPLAINTS:</b>		

On 7/8/2020, the Michigan Department of Environment, Great Lakes, and Energy, (EGLE), Air Quality Division (AQD) conducted a scheduled inspection of Fritz Enterprises of Flint.

**Environmental contact:**

- Joseph H. Arvay, Vice President; 734-283-7272; [joearvay@fritzinc.com](mailto:joearvay@fritzinc.com)
- Dennis Weaver, Plant Supervisor; [weaverd@fritzinc.com](mailto:weaverd@fritzinc.com)
- U. Sam Amer, Corporate Environmental Manager; 734-362-3200; [amers@fritzinc.com](mailto:amers@fritzinc.com)

**Facility description:**

This is a metal recycling facility, which specializes in autos and auto-related scrap.

**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

\* An *emission unit* is any part of a stationary sources which emits or has the potential to emit. an air contaminant.

**Flexible Groups:**

Flexible Group** ID	Flexible Group Description	Associated Emission Unit IDs
FG-SHREDDEROP	Shredding Operation - Scrap metal shredder to a feed shaker, discharge conveyor, magnetic drum separator, a material separation system with a z-box separation process controlled by a cyclone and wet scrubber system, associated conveyors, material storage, and all associated process activities including but not limited to management of materials from the shredding operations.	EU-SHREDDER; EU-ZBOX

\*\*A flexible group is used in a permit to install (PTI) or Renewable Operating Permit (ROP) to combine two or more emission units that have common or identical requirements.

**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 Michigan Department of Environmental Quality (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.

#### Fee status:

This facility is not considered fee-subject, because it is not a major source for criteria pollutants, nor a major source for Hazardous Air Pollutants (HAPs), nor subject to federal New Source Performance Standards, nor it subject to federal Maximum Achievable Control Technology standards. 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, almost 3.5 miles north of I-69. It is several hundred feet east of I-475. The immediately surrounding area is primarily industrial. There are a few scattered residences to the east and northeast at a distance of about 750 feet, as measured by me in Google Maps. A trailer park is about 1,700 feet to the northeast, and another residential area is about 2,500 feet to the east. The nearest residence to the north is about 1,000 feet from the site. The nearest residence to the west is about 1,900 feet. The Flint River is to the east at a distance of approximately half a mile.

#### History:

S & S Metals Processing became known as Spooner Metals, LLC, some years ago. Fritz Enterprises, Inc. (FEI) subsequently purchased the site on 11/15/2006, as I understand it. Fritz Enterprises of Flint is a wholly owned subsidiary of FEI, according to their website.

Other than the 2001 Environmental Justice complaint and associated documentation, there have been no records of AQD receiving air pollution complaints about 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 runoff. There has never been a complaint or an air pollution violation while Fritz Enterprises of Flint has been operating here.

#### Most recent 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 in PTI No. 92-00B	Test results	Results below limit?
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	Yes
PM10	4.5 lbs/hr	0.098 lbs/hr	Yes
Mercury	0.0022 lbs/hr	0.000007 lbs/hr	Yes

Chromium VI	0.00029 lbs/hr	0.000007 lbs/hr	Yes
Lead	0.003 lbs/hr	0.0002 lbs/hr	Yes
Manganese	0.0023 lbs/hr	0.0002 lbs/hr	Yes

**Safety equipment required:**

Safety glasses, steel-toed boots, and hearing protection should be worn. I brought a high visibility safety vest, although that appears optional.

Note: because of the COVID-19 pandemic, I wore a disposable paper mask.

**Arrival:**

During the current COVID-19 pandemic, EGLE guidance to inspectors as of July 2020 on conducting inspections was as follows:

- pre-arrange inspections with facilities, to facilitate a plan to conduct the inspection while adhering to facility guidelines for safety, and
- wear a mask, where social distancing of at least 6 feet is not possible.

Therefore, the time and date for this inspection had been pre-arranged with Mr. Sam Amer, Corporate Environmental Manager.

Prior to arrival, I had driven along Dort Highway, north of the site checking for industrial odors and visible emissions. There were no odors offsite from Fritz Enterprises of Flint, and I saw no visible emissions from the shredder. Weather conditions were sunny and humid, and 88 degrees F, with winds out of the south at 0-5 miles per hour.

I arrived at 10:30 AM, and noted that the onsite roadway was wet from a recent water application, for dust control purposes. I headed towards the raised platform security tower at the main gate. I met with Mr. Dennis Weaver, Plant Supervisor. We were soon joined by Mr. Sam Amer, Corporate Environmental Manager, who has worked for decades in the field of air pollution control. He indicated that he does quarterly inspections here. Mr. Joseph Arvay, Vice President, also joined us.

I was informed that the plant was not running today, because demand is down, due to the COVID-19 pandemic. I was informed production has been about 1/3 of what it normally is, as their customers, steel mills, are down to about 45% of their normal production. In March, steel mills were said to be at 30% of their normal production. Right now, I saw that they are storing a number of autos onsite, rather than shredding them.

**Correction from 2015 inspection report:**

I was advised that my 2015 inspection report, of my first visit to this site, contained a few minor inaccuracies, as follows:

- In my 2015 report, I described the operating range for the Smart Water Injection (SWI) system as 200-400 milliamps, going from idle to heavy load conditions, whereas in actuality, the normal range is said to be 500-600 milliamps. Facility recordkeeping confirmed the 500-600 range.
- In my 2015 report, I indicated that there were two cyclones. In actuality, the second cyclone was disconnected when the SWI system was installed.

**Inspection:**

I was told they no longer receive appliances, and only do autos, and auto-related scrap. Autos to be recycled are usually preprocessed offsite, and delivered to the recycle yard from certified suppliers, I was informed. Preprocessing requires the removal of all fluids, CFCs, mercury switches, and batteries. I was informed that they have a form for each car, to verify that it has had contaminants removed, like gasoline, auto batteries, etc., and that everything is inspected as it comes onsite.

The cars are then shredded and the ferrous metals are removed by magnets. "Fluff" is described in the PTI as "non-ferrous, non-metals, and waste materials." This can come from dashboards, seats, etc. The nonmetallic materials are separated and landfilled. Nonferrous metals are brokered, to be further recycled.

Mr. Amer and Mr. Weaver accompanied me throughout the facility during the inspection. As mentioned earlier in this report, the shredder was not operating today, due to lack of demand for their product.

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.

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

The shredder was not running during the inspection. It was described to me as a hammermill, with a Smart Water Injection (SWI) system. The shredder intake has mats suspended by it, as a way to block any flying objects that might be thrown out of the shredder. The SWI system is used by the shredder for dust control, and to keep the machine cool. The mist is said to dampen the incoming material, as well as everything in the shredder chamber.

The hammermill was said to discharge shredded materials into a vibratory feeder, which discharges to a conveyor, that goes to a feeder for the magnetic drum. Steel goes over the top of the drum, I was told, whereas non-ferrous materials drop out. The steel is said to go via conveyor to the inspection shanty, for non-conforming material to be identified and removed. Please see the discussion on the z-box, below.

The non-ferrous materials that drop out include nonmetallic minerals, dirt, and fluff. They are picked up by a front end loader, I was told, and go to an Eddy current separation system. It is my understanding that non-metal materials fall out, while the metals go to another Fritz Enterprises site, Huron Valley Steel, to remove copper, aluminum, brass, and stainless steel. The non-metals go to a landfill, I was told, where the "fluff" material can be used as alternate daily cover.

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

In the z- box, or "picker shack," copper and rubber are manually sorted out of the material stream. I was informed that additionally, the Z box vacuums the steel material. My understanding is that it is ducted to the still in use cyclone, which exhausts to a wet scrubber tower. The z-box was not in use at this time, since the shredder was not running.

**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, as I understand it, is basically all the non-recyclable material that is collected at the facility. The fluff can be used as alternate daily cover at landfills.

Fritz Enterprises has a written plan to minimize the inclusion of undesired materials in the processing. I was given hardcopies (please see AQD plant file) of examples of the records they keep which document steps taken to ensure removal of environmental contaminants prior to processing.

Mr. Amer provided examples of the documentation they keep to ensure that prohibited contaminants, including but not limited to fluids, Freon and/or other chlorofluorinated or halogenated chlorofluorocarbons, mercury, and batteries, are removed prior to processing scrap.

#### Facility recordkeeping:

Mr. Amer provided hardcopies of several recent visible emissions readings performed onsite (please see AQD plant file). The opacity limit in PTI No. 92-00B is set at a six-minute average of 10 percent opacity, except for uncombined water vapor. None of the visible emission readings were high enough to average at or above 10 percent opacity.

Throughput limits for raw material processed are set by PTI No. 92-00B Special Condition (SC) EU-SHREDDER II. MATERIAL LIMITS 1. Recordkeeping of throughput rate is required by SC FG-SHREDDEROP VI. MONITORING/RECORDKEEPING 2. They appear to be keeping the required records.

An electronic copy of the Flint facility's recordkeeping of raw material throughput for 2017-2020 was emailed to me by Mr. Amer on 7/7/2020, the day before the inspection, please see AQD digital file. I also received a hardcopy during today's inspection, please see hardcopy file. The facility recordkeeping was very thorough, and included yearly, monthly, daily, and hourly records. There are limits for yearly, daily, and hourly throughput rates, discussed below.

- The 1 95,000 tons per year permit limit , based upon a 12-month rolling time period, as determined at the end of each calendar month, was always met, from 2017-2020.
- The 750 tons per day permit limit was always met, from 2017-2020.
- The 60 tons per hour (TPH) permit limit was met except for a single exceedance, in 2020. Please see below.

The single instance where the spreadsheet shows that a permit limit has been exceeded was April of 2020. The permitted hourly production limit of 60 TPH was exceeded by 3.16 tons. From 10.8 hours of operation over 2 days, the average monthly value was 63.16 TPH.

There were only 2 days of production for April in the records, which is described as an unusually low number of days and hours in operation, for a month. I was informed that this was immediately brought to the attention of the operators when the exceedance was realized, and no subsequent exceedances of the tonnage limit have taken place. Also, I was told, these were not normal operational days, but occasions when they were removing heavier scrap from the plant yard, to clean it up. Had this been a normal month, Mr. Amer explained, the high numbers would have been averaged out over the rest of the month, by days with normal production rates.

In spite of the higher than allowed tonnage of the monthly average, I was informed that no emission limits in the air permit were exceeded, and so there were no negative impacts offsite. Mr. Arvay and Mr. Amer indicated that they will check their original log forms to see if there were any errors, as the number appeared unusually high to them. Mr. Amer got back with me the next day, and indicated that the numbers were accurate.

#### Post-inspection follow up:

Although the exceedance by 3.16 tons of the 60 TPH production rate is an instance of noncompliance, AQD is using enforcement discretion to not cite this as a violation, for the following reasons:

- The exceedance was immediately corrected by the company, upon their self-discovery, and this provides

resolution.

- No emission limits were exceeded as a result of the TPH exceedance, and so there were no negative impacts to the surrounding community.
- The 60 TPH monthly average limit was exceeded for only 10 hours of operation in the entire month, and the exceedance was by less than 4 TPH.
- Fritz Enterprises has not had a single prior air pollution violation, since they acquired this facility from the previous owners in 2006.

**AQD has discussed the exceedance with the company, and considers it resolved. However, AQD will return to the site in the following year, to monitor the company's continued compliance with the TPH limit.**

**Conclusion:**

**Overall, the company was in compliance with their air permit, PTI No. 92-00B. A single exceedance, by 3.16 tons over a 60 TPH raw material throughput limit in April 2020, was not considered a violation, because the company immediately resolved it, and the exceedance did not result in emissions beyond what the air permit allows for. There were no negative impacts offsite from the exceedance.**

NAME

Daniel D. McLean

DATE

9/30/2020

SUPERVISOR

B. M.