

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

B414667610

FACILITY: Ferrous Processing & Trading Co. Pontiac, LLC		SRN / ID: B4146
LOCATION: 500 COLLIER RD, PONTIAC		DISTRICT: Warren
CITY: PONTIAC		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 05/05/2023
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: FY 2023 scheduled inspection of Ferrous Processing and Trading Pontiac Division (legal name for Pontiac location: FPT-Pontiac Division, LLC) located at 500 Collier Road, City: Pontiac, Michigan & P.O.: Auburn Hills, MI 48326-1410.		
RESOLVED COMPLAINTS:		

Ferrous Processing and Trading Company (B4146)
Pontiac Division
FPT-Pontiac Division, LLC
500 Collier Road

City: Pontiac, Michigan
P.O.: Auburn Hills, MI 48326-1410

Contacts:

1. **Dee Simpson** (Phone: 248-335-8141-ext.229; Fax: 248-335-8714; Cell: 248-789-1818; E-mail: Dee.Simpson@fptScrap.com), Environmental Manager.
2. **Susan L. Johnson** (Phone: 248-258-1307; E-mail: JohnsonS@butzel.com), FPT's Attorney, Butzel-Long. Johnson is still representing FPT per US EPA CAFO (Consent Agreement and Final Order) CAA-05-2022-0026 (September 26, 2022; 40 C.F.R. § 22.13(b)).
3. **Bill Sulak** (Phone: NA; Fax: NA; Cell: NA; E-mail: **Bill.Sulak@fptScrap.com**), President
4. **Sarah Hoogterp** (Phone: 313-347-4700 ext. 237; Cell: 313-400-7708; Fax: 313-925-1331; E-mail: Sarah.Hoogterp@FPTscrap.com), Regulatory Coordinator & Purchasing Manager, Detroit

Name / ownership changes: Fragment Products → Sam Allen and Son → TBS Industrial Recycling, Inc. → FPT-Pontiac Division, LLC (owner: Ferrous Processing and Trading Company).

Active Permit-to-Install Numbers (PTI Nos.): PTI No. **120-80B** (EUOLDSHREDDER: Hammer Mill Fragmentizer Model 96104 (aka Shredder)) dated January 6, 2023. The

purpose of PTI No. **120-80B** was to incorporate inadvertently voided original PTI No. **120-80** (Approved: 4/4/1980 & voided, inadvertently: 6/10/2022) as EUOLDSHREDDER. The purpose of PTI No. **120-80A** (APP-2021-0312) was to update the existing equipment (a scrap metal shredder), including a replacement of a control device. However, the improvements, covered by PTI No. 120-80A, will NEVER be implemented as FPT intends to further increase CFM and change the manufacturer, which proposes a different control system. New permit to cover changes will be issued as PTI No. **120-80C**. Via the PTI Modification (PTI No. 120-80B → PTI No. 120-80C. PTI App No. APP-2022-0322), FPT proposes to upgrade the existing air pollution control equipment to modernize aging equipment, which will result in improved collection and control efficiency. Exhaust flow rate will be increased to 80,000 to 100,000 cubic feet per minute (CFM, variable rpm fan) from current 50,000 CFM. It may be noted that the control equipment covered by PTI No. 120-80A were never installed. Besides, closed-loop Z-box cascade cleaning system equipped one cyclone for non-metallic dirt will be removed upon installation of new control system under PTI review (May 2023). AQD is reviewing the permit modification to ensure that the **foam** to be injected will not contain PFAS.

Adm. Consent Order: AQD No. 18-1996. \$50,000.00 is a settlement. Torch-cutting is prohibited. Torch-cutting (at multiple sites within the FTP- Pontiac's yard) was source of visible emissions (up to 80% opacity based upon both then MDEQ-AQD and US EPA Region V readings) at multiple locations concurrently, frequent fires (one 36-hour fire in July 1997) and complaints (MDEQ, US EPA, US Congress). Ms. Susan L. Johnson, Environmental Counsel, Butzel-Long, stated in her June 17, 1999, letter to Ms. Lynn Fiedler, that FPT-Pontiac Division, LLC assumed all responsibilities for the permit and the consent order.

The FPT has not operated torch-cutting since April 1997 as required by consent order AQD No. 18-1996. Discontinuing torch cutting has eliminated fire / spark and smoke sources and attendant visible emissions

FPT quit processing municipal scrap, with substantial metallic content, which was a source of infamous July 1997 36-hour fire.

US EPA CAFO (Consent Agreement and Final Order): CAA-05-2022-0026 (September 26, 2022; 40 C.F.R. § 22.13(b)). The purpose of CAFO is to resolve US EPA (Region V) Notice of Violation (EPA-5-20-MI-01, PTI No. 120-80, broken capture system sheet metal, inadequate maintenance records) dated December 30, 2019.

PTIs voided: PTI Nos. 338-90A for Pyrolytic Recovery Unit with 1800 degrees Fahrenheit after-burner to reclaim metal from lead cables and copper wires (voided on 09/19/2005), **771-80** for aluminum crushing operation with dual cyclone, two cyclones in series (voided on 09/19/2005), **120-80** (Approved: 4/4/1980 & voided, inadvertently: 6/10/2022) and **204-91** for fume / smoke collection system for torch-cutting operation (voided on 09/19/2005; a smoke and particulate capture dome with a baghouse was never installed; Consent Order prohibits torch-cutting). In addition, PTI No. **523-82** for Tire Pyrolyzer, which never operated and removed over a couple of decades ago, was voided on 6/7/2016 based on FY 2016 inspection.

PTI Applications voided: Nos. 476-81(04/26/1982) for wire reclaim incinerator, **517-80 (08/09/1989)** for aluminum crusher, **516-80 (03/06/1981)** for motor crusher, and **80-79 (11/19/1984)** for wire reclaim furnace with after burner.

On **May 05, 2023**, I conducted a level 2 annual **FY 2023 scheduled inspection** of Ferrous Processing and Trading Pontiac Division (legal name for Pontiac location: FPT-Pontiac Division, LLC) located at 500 Collier Road, City: Pontiac, Michigan & P.O.: Auburn Hills, MI 48326-1410. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; and Environment, Great Lakes & Energy, Air Quality Division (EGLE-AQD) rules and Permit to Install No. **120-80B**.

During the inspection Dee Simpson, (Phone: 248-335-8141-ext.229; Fax: 248-335-8714; Cell: 248-789-1818; E-mail: Dee.Simpson@fptScrap.com), Environmental Manager, assisted me.

The company's scrap metal plant, or metal shredding facility, at Pontiac recycles ferrous and nonferrous scrap metal. It buys scrap metal, including end-of-life vehicles, appliances, and other forms of scrap metal which FPT subjects ferrous metals to various processes to facilitate re-melting in Electric Arc Furnace (EAF) at a steel mill. Non-ferrous metals such as copper, aluminum, bronze are not processed at this site but sent to other sites (Warren and Detroit) for further processing. It buys metal clips from stamping plants and compresses them into cubes of 4000 pounds. Shredded clips are also sold. Cars / vehicles are crushed and shredded in Hammer Mill (Hammer Mill Fragmentizer Model 96104), aka Shredder, where fluff is separated. Fluff is combustible material and hence causes fires. Currently (2023) fluff (ACR or Auto Shredder Residue or metal shredder residue (MSR)) is shipped out to landfills as soon as it is produced such that fluff storage at the site is minimized. FPT has minimized storage of fluff separated from shredded cars due to fires. Scrap sheet metal pieces are either sold as is or compressed into cubes depending upon customer specification. It ships the finished products to customers, steel mills, for re-melting in EAF by railroad cars or trucks.

On average, out of every 100 tons of material processed in a shredder:

1. 72 tons are recovered as ferrous, which is sold back to steel mills to be remelted.
2. 28 tons are shipped to the FTP non-ferrous recovery plant in Detroit, Michigan, where an additional 6.6 tons of material (mostly non-ferrous metals) are recovered, with approximately 21.4 tons ending up in a landfill as automobile fluff, where it is used as cover as well as landfill road construction material.

FPT processes scrap metal from various sources in its metal shredder; its exhaust is controlled by an air pollution control system that includes cyclones and a fabric filter dust collector. FPT is modifying this system to reduce the number of emission points and replace the existing air pollution control system with a drop box, or settling chamber, and new fabric filter dust collector. This system is more effective than the existing system; these changes

will be made at the recommendation of the equipment manufacturer. These changes are a subject of the permit under review (PTI No. 120-80C).

Radioactive materials, asbestos, etc. are prohibited materials, which are not accepted at FPT. FPT removes liquids from any automobiles that are crushed onsite and requires that any crushed automobiles that are brought to the site be similarly emptied of liquids (gasoline, diesel, oil, antifreeze, brake fluid, transmission fluid, etc). In addition, solid materials (lead-acid batteries; capacitors and transformers, mercury-containing switches) and refrigerants (from e.g., AC, refrigerators) are removed prior to crushing.

The company has not operated torch-cutting since April 1997 as required by consent order AQD No. 18-1996. Discontinuing torch cutting has eliminated fire / spark and smoke sources and attendant visible emissions (up to 80% opacity at multiple locations simultaneously).

PTI No. 120-80B Emission Units (EUs)

PTI No. 120-80C, EU-OLDSHREDDER.

Scrap metal shredder capable of processing 60 gross tons of product per hour. Emissions from the shredder are controlled by a water injection system and a 50,000 CFM fabric filter system. The shredder and associated equipment run on electrical power. Emissions from the secondary and tertiary separation processes are each controlled by a 30,000 CFM cyclone system. The shredder also has a feed conveyor, ferrous separation process with a gravity separator, non-ferrous separation system, associated conveyors, material storage, and associated process activities including but not limited to management of materials from the shredding operations.

This emission unit will be superseded by EUSHREDDER, and all associated conditions will become void upon trial operation of the replacement fabric filter system.

POLLUTION CONTROL EQUIPMENT

- Fabric Filter Dust Collector (Primary Cleaning Portion)
- Cyclone (Secondary & Tertiary Cleaning Portion)

Water Spray for equipment cooling and fire control. Water mist, from six (6) spray nozzles is injected into the FRAGMENTER / SHREDDER to cool the machine, prevent fire, explosion, and visible emissions (SC: shall operate water spray nozzles). Six (6) nozzles fed by one / single pipe are used to spray water as mist. The steam observed is due to this water mist. The amount of water mist sprayed is proportional to power input (kWH) to avoid excess water into the hammer mill.

PTI No. 120-80C, EU-OLDSHREDDER, I.1-9.

PM and Multi-metal emission testing has never been done (PTI No. 120-80C, EU-OLDSHREDDER, I.1-9: Beryllium < 2 micrograms per cubic meter [$2 \mu\text{g} / \text{m}^3$], Cadmium < $50 \mu\text{g} / \text{m}^3$, Chromium < $50 \mu\text{g} / \text{m}^3$, Nickel < $100 \mu\text{g} / \text{m}^3$, Lead < $150 \mu\text{g} / \text{m}^3$, Copper < $1,000 \mu\text{g} / \text{m}^3$ and Zink < $500 \mu\text{g} / \text{m}^3$). Shredder is not a combustion process although some combustion may be taking place owing to heat of friction due to shredding. At this time, a stack test to determine multi-metal emission rates is not required; may be in future if a situation warrants it.

Although I observed steam emission due to heat of friction during the crushing operation, I did NOT detect any opacity (nearly 0% opacity) (PTI No. 120-80C, EU-OLDSHREDDER, I.10: < 20% opacity).

Operational restrictions (PTI No. 120-80B, EUOLDSHREDDER, III.1-7)

All paved yard is wet swept using **Model 938 CAT** with metal brush attachment. Unpaved yard is sprayed with water using a water truck (10,000-gallon water tank CAT Truck with 2 pressurized water jets in the back). Same water truck is used to wet paved areas during sweeping if not wet due rains. 5 mph speed limit signs are posted. The yard has substantially more paved area upon purchase by FPT. In addition, Pro-sweep Sweep Company, sweeps twice per week (Tuesdays and Thursdays) as part of fugitive dust control program per the permit (PTI No. 120-80B, EUOLDSHREDDER, III.1: continuous program of fugitive dust control).

May 11, 2023, Sweeping: Invoice (ProSweep, Date: 5/11/2023, Account # 2673OS-23, Invoice # 118912, \$707.00).

All cyclones and fabric filter were operating properly based upon negligible visible emissions . Cyclones are monitored for power (KWH) usage. The roller filter is equipped with mangnehelic gauge to monitor pressure drop (ΔP) between 20-27 inches of water. When the filter roll is empty, the operator hears an alarm. Filter cloth is automatically rolled based upon pressure drop (ΔP = max 26 inches of water). (PTI No. 120-80B, EUOLDSHREDDER, III.2: cyclones and fabric collector are installed and operating properly.)

FPT Pontiac Shredder Maintenance Log is kept (PTI No. 120-80B, EUOLDSHREDDER, III.3: maintenance inspections).

Water spray is requirement for cooling equipment to prevent damage to hammer mill. Currently (2023) fluff (ACR or Auto Shredder Residue (ASR)) is shipped out to landfills as soon as its is produced such that fluff storage at site is minimized. (PTI No. 120-80B, EUOLDSHREDDER, III.5: applications of water to fluff).

All six (6) spray nozzles are operated whenever EUOLDSHREDDER is in operation (PTI No. 120-80B, EUOLDSHREDDER, III.7: operate all spray nozzles to ward off damage to the mill due to excessive heat.

Conclusion

FPT appears to be in compliance with PTI No. **120-80B**. No torch-cutting occurring. New permit (PTI No. 120-80C) will be issued for the proposed control system that will replace the existing control system.

NAME *J. S. McNamehall*

DATE June 2, 2023

SUPERVISOR *Joyce*