N6293
MANUAL

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

N629369057

FACILITY: STRONG STEEL PRODUCTS LLC		**SRN / ID:** N6293
LOCATION: 6464 STRONG, DETROIT		**DISTRICT:** Detroit
CITY: DETROIT		**COUNTY:** WAYNE
CONTACT: Jessie Edmunds , General Manager		**ACTIVITY DATE:** 09/19/2023
STAFF: Gerald Krawiec	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: FY2023		
RESOLVED COMPLAINTS:		

EGLE/AQD Inspection September 19, 2023

AQD staff conducted a Scheduled Inspection for FY 2023 of Ferrous Processing & Trading Companies Strong Steel Products Plant, located at 6464 Strong Street in the City of Detroit. The purpose of the inspection was to determine the facility's compliance with applicable state and federal air pollution rules and regulations, AQD's PTI 183-97, and Wayne County Permit C-11766. General Manager, Jessie Edmunds accompanied AQD staff during this inspection.

BACKGROUND:

The facility is located on an 8.26-acre parcel of land on Strong Street at the railroad tracks approximately 0.3 miles east of Mt. Elliott and approximately 0.3 of a mile north of Harper Ave and the I-94 freeway in an industrial/residential area.

AQD's PTI 183-97 was issued on June 25, 1997, for an Automobile / steel shredding process with water spray control. The Wayne County Permit C-11766 was issued September 16, 1998, for the same equipment. These 2 permits have essentially the same special permit conditions. However, the numbering system is not identical.

AQD conducted an on-site inspection on August 2, 2022. The company was determined to be in-compliance with both AQD and WC permits.

On August 16, 2022; AQD conducted an unannounced joint inspection with EPA staff at Strong Steel. The purpose of this inspection was to determine compliance with the Clean Air Act regulations 40 CFR Part 82 Subpart F: Recycling and Emissions Reduction. The results of this inspection have not been shared with AQD.

PROCESS DESCRIPTION:

The process begins with cars, trucks and individual walk-ins carrying scrap metal products entering the facility, passing over the scale and driving over to the storage piles to unload whatever scrap metal they may be carrying. The facility receives scrap ferrous and nonferrous metals from industrial and non-industrial customers. Scrap metal (primarily whole and crushed cars, appliances, and other large and small pieces of scrap metal) is unloaded from trucks by grapple crane and placed in appropriate storage piles. This scrap is then transferred by grapple crane from the storage piles to a feed conveyor that directs it to a shedder for size reduction.

The process is a steel shredding operation that is capable of shredding 250 ton/hour (tph). Normal operation for the unit is expected to run at 150 tph. Material is infeed on the conveyor

with a Link Belt LS 6000 Crawler Crane. The conveyor transfers the material to a feed chute and metering device. The metering device will meter the scrap steel into the machine at a rate of approximately 150 tph. The machine is driven by a 6000 HP GE wound rotor motor (GED-500-053). This is a wet shredder and while shredding, water is injected into the mill at the rate of 70 – 80 gallons/minute (gpm). This water stream also acts as a control system for particulate. The water turns to steam, and the excess water is returned to a holding tank. The scrap then goes over magnetic drums, and a water spray, sized, and transferred to a stacking conveyor. While still wet it can be stacked for shipment. This machine is built by Newell Industries of San Antonio, Texas, and all machinery except the shredder itself is inside buildings. Because the shredder is outdoors and not enclosed, when operating there is a consistent water vaper plume visible.

Most of the incoming vehicles are crushed and considered "dry". Other vehicles must be made "dry", by the removal of gasoline, antifreeze, batteries, motor oil and oil filter, transmission fluid, brake fluid, power steering fluid, differential fluid, any other hydraulic fluid, CFCs-freon and mercury switches prior to crushing. Removal of mercury switches is required to meet bioaccumulation provisions of AQD's toxic rules. CFCs-freon removal is required per Section 608 of the Clean Air Act.

The shredded scrap metal and associated materials are transferred by conveyor into a building where equipment performs material separation processes. Separated ferrous and non-ferrous metals are transferred by conveyor to covered storage piles awaiting transfer by front-end loader to transportation containers such as railcars, and roll-off boxes for shipment to customers. Waste materials (referred to as fluff or mud) are transferred by separate conveyors to covered storage piles. These waste materials are transferred by front-end loader to transportation container such as truck containers, roll-off boxes, etc. for shipment to off-site waste processing facilities. Fluff is primarily comprised of foam and insulation from vehicle interiors such as car seats, carpeting, and other similar components and produced by the material separation process. Mud is primarily comprised of dirt and particulates removed from the scrap during the material separation process.

OPERATING SCHEDULE

The company currently employees 25 people and operates 12-hours a day (6:00am – 6:00pm) 5 or 6 days a week. The shredder however operates from 6:00am – 4:30pm.

INSPECTION NARRITIVE

General Manager, Jessie Edmunds notified Environmental Director, Lisa Carroll that I was on -site. The General Manager then accompanied AQD staff during this inspection. The inspection started at the garage where vehicles have all fluids, gasoline, gasoline tanks and all other fluids as described earlier removed. This is a 4-bay garage and CFC removal was observed at this time. Stacks of batteries and a few mercury switches were also observed.

We then went to the scrap pile. This pile was approximately 20 – 25 feet high and made up of anything having metal: kitchen appliances, washers and dryers from a laundry room, hot water tanks, bicycles, car parts, rims, window AC units, freezers, etc.

We are going around the property in a clockwise direction.

As we walk around the scrap pile, we come to the conveyor that feeds the shredder. At this time the shredder is shutdown for a 3-week annual maintenance. Replacement parts are

observed as well as worn parts that have been replaced. The shredder has been down approximately 10 days and is expected to be in operation in about 2-weeks.

We are now located on the west side of the property along the railroad tracks. The shredded material is sized, wet, and piled inside the staging building. There is minor fugitive dust in this area from the unloaded truck traffic leaving the site.

We continued to the non-ferrous building were copper wire, copper pipe, brass valves and any other non-ferrous material can be found. There is a CFC recovery unit in this building also to collect refrigerants from small appliances such as window AC units.

The property is largely paved, and fugitive dust was not a concern at this time.

POST INSPECTION

General Manager, Jessie Edmunds and I returned to the office. Mr. Edmunds has been in this position for only 6 weeks although he has been with the company for 12 years. He has some experience as the General Manager at the Inkster Plant. He has never experienced an AQD inspection, and I answered all his questions. I then explained that I needed to review the records required by the permits, and I requested all the records required by the air permit for the past 12 months between 2022 and 2023, such as production, and maintenance logs, and fugitive dust control logs. He had little idea of what I needed. He contacted Environmental Director, Lisa Carroll, she stated that she would collect the data and email those records to me for review. However, she needed a couple weeks. On October 4, 2023, I received the email with several attachments. This email with attachments is included in this report.

OFF-SITE RECORDS REVIEW

The production records from September 2022 through August 2023 reported a production of 144,055 TPY, the PTIs limit production to 1,252,000 TPY. Copies are attached and demonstrate compliance.

Annual hours of shredder operation from September 2022 through August 2023 calculates to 2,439 hours, the PTIs limit the hours of shredder operation to 5008 hours per year. Copies are attached and demonstrate compliance.

The company shall drain and remove ALL fluids from vehicles described earlier in this report. Records from Buck's Oil Co. Inc. in Romulus indicate disposal of fluids. Copies are attached and demonstrate compliance.

The company shall remove all batteries from vehicles. Records indicate removal. Copies are attached and demonstrate compliance.

The company shall remove all mercury switches from vehicles. Records indicate that the company joined the National Vehicle Mercury Switch Program and has records of the number of mercury switches removed. Copies are attached and demonstrate compliance.

The company shall remove and properly dispose of all freon or other CFCs/HCFCs from vehicles. Records indicate that refrigerants were sent to Golden Refrigerant in Livonia for processing. Copies are attached and demonstrate compliance.

The Fugitive Dust Control Plan was prepared by Derenzo Environmental Services in December 2016. Fugitive dust logs are attached and demonstrate compliance.

COMPLAINCE DETERINATION

Based on this plant inspection and the review of the special conditions of Strong Steel's AQD PTI 183-97, and Wayne County Permit C-11766, this facility is operating in compliance with applicable air quality rules and regulations, enforceable by AQD.

NAME EJ Kowalski DATE 5/23/24 SUPERVISOR JK