

N6293

MANILA

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

N629364127

FACILITY: STRONG STEEL PRODUCTS LLC		SRN / ID: N6293
LOCATION: 6464 STRONG, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Nicholas Milantoni , General Manger		ACTIVITY DATE: 08/16/2022
STAFF: Gerald Krawiec	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: AQD/EPA Joint Inspection		
RESOLVED COMPLAINTS:		

Joint inspection with EPA staff conducted on August 16, 2022:

I joined EPA staff, Brittany Cobb, and Natalia Vazquez at 9:00am for an unannounced inspection at Strong Steel. The purpose of the inspection was to determine compliance with the Clean Air Act regulations 40 CFR Part 82 Subpart F: Recycling and Emissions Reduction. General Manager, Nicholas Milantoni was our main contact person.

EPA staff opened the pre-inspection meeting asking several questions regarding the handling of CFCs, about record keeping, signage on the building, asked for copies of company contracts with commercial customers etc. General Manager, Nicholas Milantoni answered all the questions and accompanied EPA and AQD staff during this inspection.

The tour of the site went much like I described in my inspection report of August 2, 2022. We started at the garage where vehicles are drained of fluids and CFCs are recovered and went clockwise around the entire facility.

When we came to the scrap pile, Brittany asked to have several refrigerators brought down from the pile so that they could examine the compressors. EPA staff took several photos of problems with units that still had refrigerant in them or compressors that were cut out etc. Natalia was equipped with a FLIR camera and began to video their activity. They found several issues regarding the handling of the CFCs with regard to these refrigerators.

When we came to the shredder, Natalia videotaped the plume for several minutes. The plume consists of a great deal water vapor. There may be some light blue color in the plume at times however it cannot be separated from the water vapor.

During the Closing Conference while viewing the video of the shredder plume, EPA staff expressed that there may be some issues. When I viewed the same footage on the FLIR camera, I could not distinguish the water vapor from any bluish emission. When leaving, Brittany questioned me about the handling of CFCs from the refrigerators. I said the State of Michigan, EGLE, AQD does not have delegation of authority for 40 CFR Part 82 Subpart F.

EGLA/AQD Inspection August 2, 2022

AQD staff conducted a Scheduled Inspection for FY 2022 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, Nicholas Milantoni and Environmental Director, Lisa Carroll 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.

On June 18, 2003, U.S. EPA filed the complaint in an action against Strong Steel Products. Violations alleged at this facility were of Section 608 of the Act, 42 CFR 82.156(f). In March 2005 Strong Steel entered into a Consent Agreement and Final Order (CAFO) regarding those allegations settling with a civil penalty of \$500,000.

On 5/10/2021 - 3 PEAS complaints were received between 3:00pm – 3:33pm, none of the complainants lived nearby each other or nearby the facility. Each stated there was a large cloud of black smoke in the air from an unknown source. AQD Inspector Zynda investigated and found the huge cloud of smoke being generated from this facility because it was on fire. Detroit Fire Department and Detroit Police Department are on-site.

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 shredder 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 vapor 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 employs 27 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 NARRATIVE

General Manager, Nicholas Milantoni and Environmental Director, Lisa Carroll 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 over to the scrap pile. This pile was approximately 20 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, etc. We are going around the property in a clockwise direction.

As we walk around the scrap pile, we come to the conveyor feeding the shredder. At this time only crushed cars are being fed onto the conveyor. Crushed cars are being unloaded from the trucks/trailers they were hauled in on and fed directly to the conveyor, carrying them to the shredder chute. There was a line of trucks waiting to unload. No material from the scrap pile was fed to the shredder at this time. Observing the shredder operation, a large water vapor plume is visible with some bluish emission also. It is not possible to conduct an opacity observation, there is not a stack and the shredder chute is estimated to be 18 feet X 12 feet and approximately 25 feet above ground level. 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 where 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.

We then observed the building where the fluff and mud is collected and held before being shipping to a disposal facility. All these materials were wet and inside the building.

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

POST INSPECTION

General Manager, Nicholas Milantoni and Environmental Director, Lisa Carroll and I returned to the office. We discussed some questions about the operations. Before the inspection started, I requested Mr. Milantoni, have copies available for me to take with me of the all the records required by the air permit for 2021 and 2022, such as production, and maintenance logs, and fugitive dust control logs. I wanted copies that I can take with me to review off-site. Those records were made available. Taking records with me to review off-site minimizes the person-to-person time spent at the plant during this current time of Covid-19 health concerns. I was provided the copies of all the records required by AQD's PTI 183-97, and Wayne County Permit C-11766. The record keeping requirements are the same for both permits. I stated that I will be reviewing the company records off-site. If I have any questions or issues, I will be in contact with them.

OFF-SITE RECORDS REVIEW

The production records from February 2021 through January 2022 showed a production of 192,524 TPY, both PTIs limit production to 1,252,000 TPY. Copies are attached and demonstrate compliance.

Annual hours of shredder operation from February 2021 through January 2022 calculates to 3,604 hours, both 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 from EARL'S BATTERY SERVICE located in Fraser 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/HCFs from vehicles. Records indicate that all 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.

COMPLAINEE DETERMINATION

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. The USEPA has the authority to determine compliance with 40 CFR part 82 Subpart F, and the compliance status of this facility with those requirements that are not addressed in this report.

NAME



DATE

3/31/23

SUPERVISOR

