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

N732173954		
FACILITY: ROSLER METAL FINISHING USA, LLC		SRN / ID: N7321
LOCATION: 1551 DENSO RD., BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Shannon Visger , Chief Financial Officer		ACTIVITY DATE: 07/02/2024
STAFF: Jared Edgerton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Air Quality Inspection		
RESOLVED COMPLAINTS:		

On July 2, 2024, Air Quality Division (AQD) staff, Jared Edgerton, conducted an unannounced air quality inspection at Rosler Metal Finishing USA, LLC plant located at 1551 Denso Road, Battle Creek Michigan, 49037. This facility is a German-owned company that repairs polyurethane lined vibratory tubs, as well as manufactures abrasive media used in metal finishing equipment. This facility was last inspected on January 24, 2020, and was deemed compliant. The purpose of this inspection was to determine compliance with Permits to Install (PTI) No. 125-08A and 27-11 and other state and federal regulations. Rosler is a Synthetic Minor source for Hazardous Air pollutants (HAPs) as well as a true Minor source for nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), lead (Pb), particulate matter (PM), and volatile organic compounds (VOC).

Staff arrived at the facility at 12:53 PM to cloudy skies and temperatures in the mid-70s. AQD staff made contact with the receptionist and asked for the environmental contact or Ms. Shannon Visger. Ms. Visger is the Chief Financial Officer, and was the contact person for the last inspection. The receptionist stated that Ms. Visger was not on-site, and that she would put me in contact with Mr. Daniel Fluker, Chief Operating Officer.

AQD staff stated to Mr. Fluker the purpose of the visit and the process of how the site inspection will be conducted. Staff then asked some general operational questions. Rosler is currently employing about 60 to 65 people at this facility. Staff work two main schedules, with most employees working first shift, 10 hours a day, Monday through Thursday. Some other staff work12 hours a day, 3 days a week. Mr. Fluker was also asked if the facility had any boilers, and he stated that the facility has three. The facility also has no cold cleaners, and one emergency generator installed outside the abrasive media production building. The following describes the operations and compliance status of the facility.

Mr. Fluker first led me to the back of the plant where EUPyrolysis is located. This emission unit is a Jackson Oven Model 15825 oven used to remove polyurethane linings from worn tubs, spinners, and vibratory bowls. It is natural gas fired and rated at 2 MMBtu/hour with two 1.2 MMBtu/hour thermal oxidizers. The oven was not in operation at the time of the inspection. The oven was confirmed by Mr. Fluker to have water sprays to quench the parts in the oven to retard flame formation and also has an interlock system to shut down the primary oven if the thermal oxidizers malfunction. Testing from 2011 showed compliance with the HCI limit of 3.8 pph and the Hydrogen cyanide limit of 0.15 pph. Staff observed the circle chart mounted on the side of the oven. It showed the temperature of the oven, and it appeared to staff that it has consistently stayed above the minimum temperature of 1560 degrees F.

Mr. Fluker stated that the temperatures of the primary chamber and secondary chamber are automatically controlled.

The inspection then moved on to the exempt equipment at the facility. Located in a room nearby is a large paint spray booth. It is used to paint the assembled machinery. There were large filters installed from the floor to the ceiling, and they appeared to be in satisfactory condition. The booth was not in operation when staff was inspecting the equipment. Mr. Fluker stated that this booth is used daily and vents internally. This operation appears to be exempt under Rule 287(2)(c). Right next to the booth is the paint gun cleaning area. It is installed along the wall behind the paint booth. It was also not in operation during the inspection. This area vents into the paint booth and is serviced by Safety Kleen. It appears this process is exempt under Rule 290.

Just beyond the painting operations is the shot blast booth. It is used to prep finishing equipment surfaces after they have been processed in the oven. This booth is routed to a dust collector outside the building, and then the exhaust is vented back into the building. A sand blasting area vents to an internal dust collector before the clean air is vented externally. These operations appear to be exempt under Rule 285 (2)(I)(vi)

Mr. Fluker continued the inspection to the polyurethane pouring area. This is where the tubs from EUPyrolysis are relined. There are both hot cure pouring and room temperature pouring options. Some of the tubs are then placed into a hot box area to cure for 24 hours. This allows the facility to reduce the cure times. There was one operator applying material to one of the tubs during the inspection, but staff did not observe any tubs go through the pouring processes. The process appears to be exempt under Rule 286(2)(e).

There is also an assembly area where shot blast machines are located. Near this equipment, there are also welding stations and various machining operations. The welding areas are all equipped with fume hoods that vent internally. The welding appears to be exempt under Rule 285(2)(i). The machining equipment is exempt under Rule 285(2)(I)(vi)(B).

The inspection proceeded to the plastic building. While outside the main building, I looked to see if there were any associated odors or visible emissions. Staff confirmed that no odors or visible emissions were coming from the main building. The building north of the main building is where the plastic abrasive rocks are manufactured. This process is permitted under PTI 125-08A. It consists of 2 sealed polyester resin storage tanks, 1 bag breaking station with associated dust collector, 1 weight hopper, 7 large and 2 small mixing tanks that go to a dust collector, 2 material tables, 3 molding conveyor lines with catalyst injection stations, and enclosed curing chambers. At the end of the line are 3 tumblers. Nearby, there are 1 off-line tumbling station, 2 bag-out areas, and a cleanup station.

As staff entered the plastic building, there were strong styrene odors. These odors were only observed while inside the building, but staff warned Mr. Fluker to make sure doors stay closed to reduced fugitive odor released to the outdoor air. The ingredients are stored in resin tanks or in the bags they are shipped in. Bags are broken at a bag breaking station, and the particulate matter emissions are controlled by an internal dust collector. Staff asked Mr. Fluker how often the filters are replaced

on the collector, and he stated that it is dependent on workload. Ingredients are then added to a weigh hopper and mixed into one of the nine mixing tanks. The materials are then sent to one of the three molding conveyors. At the time of the inspection, two lines were in operation. The poured plastic is sent down the line to a heated curing chamber, and then to a tumbler to be finished. These tumblers smooth out any rough edges or abrasions before the media is fully cooled. Nearby the 3 lines are two mat tables used for smaller orders. Acetone was confirmed to be the only solvent used at the facility for cleaning purposes. Surfasolve is not used by the facility.

By this time Mr. Shay Thomas, who runs the plastics building, joined the group. Staff asked to see where waste materials are stored. Mr. Thomas led staff to a drum barrel used to store the waste. The barrel had no lid on it, which concerned staff. After the inspection, it was confirmed that within PTI 125-08A, EU-Abr-Media has a process restriction which states that all waste resins, accelerators, colorants, promoters, and catalysts shall be captured and stored in closed containers. The facility was not compliant with this requirement. AQD staff stated that a picture of a lid installed to the barrel would resolve this violation. Staff received a picture with the other record request documents, and deemed the violation resolved with the picture.

Staff then requested to go outside to verify stack heights and dimensions. On the plastics building, there are three stacks from the molding lines. It was confirmed that each stack was compliant with the minimum height above the ground of 27 feet. Diameter was not confirmed, but staff could tell that all three looked the same and were not obstructed vertically. On the southwest corner of the building is a 125KW natural gas fired Cummings generator. It is considered exempt from permitting under Rule 285(2)(g). The control panel was able to be unlocked by Mr. Thomas, and the generator was verified by staff to have a non-resettable hour meter as required by 40 CFR Part 63, Subpart ZZZZ. The meter read 220.7 hours, with 475 starts. The facility stated that daily maintenance is performed by Cummings.

The tour returned back to the main building so staff could observe three small Rheos boilers. These units are located on the second floor and supply the building with hot water. These are exempt under Rule 282(2)(b)(i). There is also another 80KW diesel powered generator with a 128 bhp engine. The generator was not located by staff, but at the time of the last inspection was exempt under Rule 285(2)(g).

AQD staff thanked Mr. Fluker, stating that the inspection would be concluded with a records request sent by email. Both Ms. Visger and Mr. Fluker worked together to submit records to staff. On July 5, 2024, staff requested records, and began to receive them from Rosler by July 9, 2024. The results of the tour and records review are detailed below.

Conclusion of Inspection / Record Request Determination:

At the time of the inspection, based on what was observed during the walkthrough and the records review, Rosler appeared to be compliant with Permits to Install No. 125-08A and 27-11, and other state and federal regulations. Staff received photos of the waste barrel covered with a lid. Photo of the correction is attached to this report. There are recordkeeping requirements under EUPyrolsis, EU-Abr-Media, and FGFACILITY special conditions. Summarized below are the results of the record review. Records were received for the last two years.

Records for PTI No. 27-11 EUPyrolsis:

- 1. Please provide records of the temperature in the oven secondary chamber or afterburner
 - Appears compliant? Yes. Records were provided by photo of the oven's temperature wheel. Temperatures of the oven appear to be over the minimum limit of 1560 degrees F
- 2. Please provide records for calibrations performed on the thermocouples associated with the primary and afterburner.
 - Appears compliant? Yes. Records were provided by the facility and show that calibrations are completed every three months. 5-28-24 was the date of the last calibration performed, with the next calibration scheduled for 8-24. The testing company was Consolidated Controls LLC, and the calibration technician was Michael Morey.
- 3. Provide monthly records of the description of each lining thermally removed from parts and the weight in pounds.
 - Appears compliant? Yes. Facility is keeping satisfactory records with totals well below the limit of 61,425 pounds of urethane per 12 month rolling time period. The largest total was recorded in January 2023 with 28,040 pounds of urethane.
- 4. The emission factor used for Hydrogen Chloride used in the lining removing process.
 - Appears complaint? Yes. Facility provided the emission factor used to calculate the total hydrogen chloride used in the lining removing process.
- 5. Please provide records for the Hydrogen Chloride mass emission calculations determining the overall monthly emission rate in pounds per month, as well as the annual emission rate per 12 month rolling time periods. (Monthly and 12 month rolling records)
 - Appears compliant? Yes. Records provided show satisfactory monthly and 12 month rolling records, with totals below the limit of 2000 lbs/yr. The highest total month was in April 2022 with 826.4 pounds.
- 6. Provide monthly records of the Urethane usage per 12 month rolling time period.
 - Appears compliant? Yes. Records provided are acceptable with totals well below the 61,425 pounds of urethane per 12 month rolling time period limit.
- 7. Please provide records for the pounds of polyurethane linings thermally removed per each oven batch. (Provide records for the last 5 months)
 - Appears complaint? Yes. Records were provided for the last 5 months, and are satisfactory.
- 8. Please provide the Material Safety Data Sheets for 3 different materials removed from the parts in the EUPYROLYSIS process. (Facility's choice)
 - Appears complaint? Yes. Safety data sheets were provided by the facility. Sheets included were for Vibrathane B 600, Conathane TU-79MF part A Urethane Prepolymer, and Conathane TU-79MF part B Curative.

Records for PTI No. 125-08A EU-Abr-Media:

- 1. Provide monthly records for gallons (with Water) or pounds of each resins, accelerators, colorants, promoters, and catalysts used.
 - Appears complaint? Yes. Records provided by facility show the totals of resins, accelerators, colorants, promoters, and catalysts are well below the limit of 3,000,000 pounds per 12 month rolling time period. Totals did not reach more than 1.3 million in a calendar month. Records are satisfactory.
- 2. Provide 12-month rolling time period records for the total pounds of resin used
 - Appears complaint Yes. Records are being kept and are satisfactory. Total pounds of resin used is well below the 3 million lbs limit.
- 3. Provide monthly records for VOC content (minus water and with water) of each resins, accelerators, colorants, promoters, and catalysts as applied.
 - Appears complaint? Yes. Records provided show that the facility is keeping track of each material VOC content every month. Records are kept and are satisfactory.
- 4. Provide records for VOC mass emission calculations during monthly and annual emission rate in tons per 12 month rolling time period. (Monthly and 12 month rolling time period records)

- Appears complaint? Yes. Records are kept for both monthly and 12 month rolling time period. Totals are below the limit of 13.1 tpy. In the last two years, October, November, and December 2023 had the largest totals of 2.5 tpy of VOC emitted.
- 5. Provide monthly records for the hours of operation.
 - Appears complaint? Yes. Records are kept and are satisfactory. There is no maximum hour limit per month.

Records for PTI No. 125-08A EU-Abr-Media (Purge and clean-up solvents):

- 1. Provide monthly records for pounds of each solvent used and reclaimed
 - Appears complaint? Yes. Records are kept by the facility, with no solvents being reclaimed. Acetone is used by the facility for clean-up purposes.
- 2. Provide monthly records for VOC content of each solvent used
 - Appears complaint? Yes. Facility is keeping satisfactory records of each solvent, and the VOC content associated with the solvent.
- 3. Please provide VOC mass emission calculations in tons per month and annual emission rates in tons per 12 month rolling time period.
 - Appears complaint? Yes. Records are satisfactory with totals below the limit of 13.1 tons per year.

Records for PTI No. 27-11 FGFACILITY:

- 1. Provide monthly records for gallons or pounds of each HAP containing material used.
 - Appears complaint? Yes. Monthly records show that each HAP contain material is recorded by the pound. Totals for each HAP emitted is less than the limit of 9.0 tpy.
- 2. Provide monthly records for gallons or pounds of each HAP contain material reclaimed.
 - Appears complaint? Yes. Records appear that no reclaiming is being performed at the facility.
- 3. Provide monthly records for HAP content in pound per gallon for each HAP containing material used.
 - Appears complaint? Yes. Records are kept and satisfactory. Each HAP used is recorded in pounds.
- 4. Provide records for individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - Appears complaint? Yes. Records show that each HAP is kept monthly as well as the aggregate HAP calculations. All totals are below the limit of 9.0 tpy for each HAP and below the limit for aggregate HAPs at 22.5 tpy.
- 5. Provide records for individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period.
 - Appears complaint? Yes. Records are being kept for the annual emission rate of each individual HAP, and aggregate HAP. The facility is well below the limit for individual HAPs at 9.0 and below the limit for aggregate HAPs at 22.5 tpy.

After reviewing what was observed during the on-site inspection and determining that the records were satisfactory with permit requirements, it appears the Rosler Metal Finishings USA, LLC is currently in compliance with Permits to Install 125-08A and 27-11, as well as other state and federal regulations. Staff concluded the inspection at 2:25 PM. -JLE

NAME <u>Adgeston</u> DATE <u>9-30-24</u> SUPERVISOR <u>Monica Broth</u>ers