

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

B180137799

FACILITY: FCA US LLC, STERLING STAMPING PLANT		SRN / ID: B1801
LOCATION: 35777 VAN DYKE, STERLING HTS		DISTRICT: Southeast Michigan
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT: Dinesh Dhamsania, Environmental Specialist		ACTIVITY DATE: 11/16/2016
STAFF: Samuel Liveson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection of an opt-out source. The paragraph discussing process water treatment was revised 12/19/16 per facility request.		
RESOLVED COMPLAINTS:		

On November 16, 2016, I conducted an unannounced, scheduled, level 2 inspection of FCA US LLC Sterling Stamping Plant (Sterling Stamping), located at 35777 Van Dyke in Sterling Heights, Michigan. The purpose of this inspection was to determine the facility's compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; the Air Pollution Control Rules; and the conditions of Permit to Install (PTI) No. 411-99.

I arrived on site around 1:00 pm. I met with Mr. Dinesh Dhamsania, Environmental Specialist. Mr. Dhamsania provided records and a walkthrough of the facility. I provided Mr. Dhamsania with my employee identification.

Opening Meeting

Sterling Stamping stamps automotive parts for the Jefferson North Assembly Plant, Sterling Heights Assembly Plant, Toledo Assembly Plant, Belvidere Assembly Plant, and other assembly plants in Mexico. The facility receives blanks as coils and as flat sheets delivered by truck. The facility ships stamped parts by truck and rail.

The facility has 2,208 employees. Stamping operations occur twenty four hours a day, seven days a week, and assembly operations take place six days a week in two shifts. The facility opted-out of becoming a major source by obtaining federally-enforceable limits on their carbon monoxide and nitrogen oxide emissions. PTI No. 411-99 is for natural gas usage on site. The majority of natural gas is used for space heating.

Facility Walk-Through

Blank Cleaning

Steel and aluminum blanks are received in coils and flat sheets. Blanks are cleaned in hot water on one of three lines (A, B, and C) supplied by natural gas. During this process, metal received in rolls is flattened. Natural gas-fired service water heaters have a combined heat input of 5.2 million British thermal units (MMBTUs) per hour. They appear to be exempt from obtaining a Permit to Install per R 282(b)(i). Hot exhaust vents to ambient air.

Process water goes through an oil/water separation system. The oily waste is removed by the system and stored in above ground tanks until it is sent to a treatment, storage and disposal facility for recycling and further processing. The effluent discharge (industrial wastewater) from the system is sent to the City of Detroit sewer system per wastewater discharge permit No.: 001-93900-IU. This treatment appears to be exempt from obtaining a Permit to Install per R 285(m).

Forming

Forming and pressing occurs hydraulically and electrically. These machining processes appear to be exempt from obtaining a Permit to Install per R 285(vi)(B). Welding operations appear to be exempt per R 285(i). Cuttings are conveyed to a separate building where aluminum is separated via magnets, and steel is compressed into one ton cubes. No shredding of metals occurs. There don't appear to be notable air quality concerns associated with scrap recycling.

40 CFR Part 60 Subpart Dc Boiler

A natural-gas fired boiler on site is used to keep two 250,000 gallon tanks of water for fire suppression from freezing, as well as to keep several other storage tanks from freezing. We visited the boiler on site. Its heat input is 10.2 MMBTU according to its nameplate. Because the heat input is greater than 10 MMBTU, it appears to be subject to 40 CFR Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units per paragraph §60.40c(a). The boiler was manufactured in 1996 according to its nameplate. According to the operator on site the boiler has no fuel oil backup.

Per §60.48c(a), the Air Quality Division (MDEQ-AQD) received notification that the boiler was subject to Subpart

Dc on May 13, 2003. Per §60.48c(g)(2), the facility tracks monthly natural gas usage.

40 CFR Part 63 Subpart ZZZZ

We visited one 208 horsepower (HP) diesel-fired emergency fire engine on site used to pump water in the case of a fire emergency. It has a non-resettable hours meter according to Mr. Dhamsania. The engine is operated once a week. According to Sterling Stamping staff it was installed in the mid-1990's.

Mr. Dhamsania provided fire pump operational hours showing that the fire pump was operated for 31.1 hours from January through July of 2016, all for maintenance and testing, and none for emergency use. MDEQ-AQD does not have delegated authority to evaluate compliance with 40 CFR Part 63 Subpart ZZZZ. Because the engine was constructed before July 11, 2015, the engine does not appear to be subject to 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Adhesive Application – Rule 290

Sterling Stamping applies several adhesives to stamped parts, and considers this adhesive application exempt from obtaining a Permit to Install per R 290. We observed adhesive application during the inspection. Adhesive travels from 55 gallon drums through a pipe to a robot for application. The adhesive acts like a cement to provide structural support to the part. According to Mr. Dhamsania, no baking occurs at the Sterling Stamping plant.

Mr. Dhamsania provided records for adhesive emissions from January of 2016 through September of 2016, and similar records for 2015 were provided in MAERS (Michigan Air Emissions Reporting System). Also provided were material safety datasheets (MSDS) for the two most-used adhesives on site (Teroson PV 4010.9 and Versilok 265).

The provided MSDS for Versilok 265 showed a VOC content of 2.3 pounds per gallon and a percent volatile of 0.4%, although Sterling Stamping records indicate that Versilok 265 is non-volatile by volume. On December 5, I called Lord Corporation, the manufacturer of Versilok 265 about the discrepancy in VOC content. Lord Corporation verified that Versilok 265 is non-volatile by volume, and provided an updated safety datasheet (SDS) with this information (attached). On December 8, I talked with Mr. Dhamsania about the discrepancy, and he provided an updated SDS indicating that Versilok 265 is non-volatile by volume as shown in the Sterling Stamping records. He explained that the MSDS originally provided was in a Chrysler format, whereas the SDS provided more recently is from the manufacturer. The discrepancy appears to be due to incorrect information in the Chrysler format MSDS.

The volatile component of Teroson PV 4010.9 appears to be kerosene, which has an initial threshold screening level (ITSL) of 24 micrograms per cubic meter, so that 1000 pounds can be emitted per month per R 290(a)(ii) (A). The highest emissions since 2015 were 182.4 pounds in September of 2015.

Maintenance Paint Booth – Rule 287(c)

We visited the maintenance paint booth on site. The booth is used for non-production parts at the stamping facility; for example, stands and cabinets. Paint is applied manually via an airless applicator. When the paint booth is operating, air exhausts through mesh filters to ambient air. Filters are changed approximately every three months. Two closed containers of waste paint are located on the side of the paint booth. The facility uses R 287(c) as an exemption from obtaining a Permit to Install.

Mr. Dhamsania provided gallons of coating used through October of 2016, and similar emissions for 2015 were provided in MAERS. Also provided were two months of handwritten records which are transferred into an electronic spreadsheet, and safety datasheets of the two most-used coatings (Pitt-Tech Gloss LTX Black 90-353 and Pitt-Tech Gloss Acrylic Enamel 90-330). The most coatings used since January of 2015 was 25 gallons in April of 2016, which is below the exemption limit of 200 gallons per month. Mr. Dhamsania provided safety datasheets for the two most-used coatings on site according to the paint booth manager. According to the safety datasheets, both paints are water-based, and Mr. Dhamsania explained that all paint used in the booth is water-based.

Facility Natural Gas Usage – PTI No. 411-99

PTI No. 411-99 limits Sterling Stamping's natural gas usage to 1,200 million cubic feet (MMCF) per year, and limits its resulting nitrogen oxide emission rate and carbon monoxide emission rate to 60 tons and 50.4 tons per year respectively. Much of this usage is for space heaters throughout the facility that have a combined total heat input of 9.26 MMBTU. These pieces of equipment are exempt from obtaining a Permit to Install per R 282.

We visited the natural gas pipe leading into the facility. Usage is based upon monthly statements from the

provider. First, an estimated statement for the most-current month is provided. The next month, an actual statement is provided for the previous month. Both units of million cubic feet and million British thermal units are provided from Consumer's. Mr. Dhamsania provided the October estimate statement and the September actual statements as a sample of recordkeeping. Nitrogen oxide (NOx) and carbon monoxide (CO) emissions are based on emission factors of 100 pounds NOx/106 standard cubic feet (SCF) natural gas, and 84 pounds CO/106 SCF natural gas.

Mr. Dhamsania provided records of natural gas usage for January through October of 2016. Similar records for 2015 were provided in MAERS. Since January of 2015, the most natural gas used appears to be 211.9 MMCF per 12-month rolling time period in January of 2015. This is below the facility limit of 1,200 MMCF per Special Condition (S.C.) 1. Maximum emissions of NOx were 10.59 tons per 12-month rolling time period in January of 2015, below the facility limit of 60 tons per S.C. 2. Maximum emissions of CO were 8.90 tons per 12-month rolling time period in January of 2015, below the facility limit of 50.4 tons per S.C. 3.

Conclusion

Based on the AQD inspection and records review, it appears that Sterling Stamping is in compliance with the federal Clean Air Act, NREPA, and the conditions of PTI No. 411-99.

NAME *Stan Dun*

DATE 12/19/2016

SUPERVISOR SF