

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

N514550470

FACILITY: INDUSTRIAL METAL COATINGS INC		SRN / ID: N5145
LOCATION: 6070 18 MILE RD, STERLING HTS		DISTRICT: Southeast Michigan
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT: Scott Roach , General Manager		ACTIVITY DATE: 08/13/2019
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site Inspection		
RESOLVED COMPLAINTS:		

On August 13, 2019, I, Joseph Forth, Michigan Department of Environment, Great Lakes, and Energy (EGLE-AQD) Staff, conducted an unannounced scheduled inspection at Industrial Metal Coatings (IMC), located at 6070 18 Mile Rd, Sterling Heights, MI. The purpose of the inspection was to determine the facility's compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended, MDEQ-AQD Air Pollution Rules, the National Emissions Standards for Hazardous Air Pollutants (NESHAP), and Permits to Install Nos. 25-16 and 106-94.

Facility Description

IMC is an automotive supplier. The primary activity at the facility is metal parts coating. There is some assembly of parts using manual labor. The facility employs approximately 50-75 workers and works one long shift of 7 am to 5 pm. The main process at IMC is their e-coat coating line. The parts are put on racks which carry the parts through the process. First, they are cleaned with hot water and soap. Then a primer is applied. The parts are then coated with Powercron Black Feed coating via electric plating e-coat process. The racks are then taken through a drying oven. The oven operates at 350 °F, curing the coating. The parts are then removed from the racks and placed in shipping containers. Once certain racks have reached an amount of built up coating, they are taken to burn off ovens for cleaning. There are 4 burn off ovens which can hold several racks each. The racks are loaded in and processed to remove the excess coating (process time of 1-2 hours).

IMC has a waste treatment system on-site to treat the wastewater from the e-coat rinse tank. The facility occasionally has the waste filter cakes removed by an environmental service company (See Attachment A).

There is another facility located in the building, Industrial Metal Finishing (IMF). This is a sister company to IMC. IMF's main process is deburring metal parts. This is the process of removing jagged edges or protrusions. These processes have no air emissions.

IMC does not use any cold cleaners or solvent based washing units. The facility does not have any backup generators. There is a natural gas boiler in the facility that is used to heat up the water wash for the parts. The information plate on the boiler states that the max BTU input of the boiler is 6,000,000 BTU/hour. This makes the boiler exempt from permitting per R 336.1282(2)(a). There have been no changes or additions to the process since the last inspection.

AQD has issued many violation notices to IMC for frequent Rule 901 Odor Violations over the last few years. The issue is considered ongoing and unresolved. A violation is not being issued as a result of this inspection as the main focus was compliance with the special conditions of the two permits. Violations due to odor are usually issued in response to complaint investigations performed by AQD staff.

Facility Inspection

I arrived at the facility at 11:30 am. Scott Roach (General Manager) met with me to represent the facility. I stated the purpose of the inspection and presented my credentials. We discussed the required records for compliance with the facility's permits. Next, I was given a tour of the facility. Mr. Roach showed us the production line for the e-coat process. Next, Mr. Roach showed me the four burn off ovens, located in the back of the facility. During the inspection, none of the ovens were operating. I had Mr. Roach turn on one of the ovens so that I could see that the temperature monitor was operational.

I left the facility at 11:45 am.

Compliance**PTI No. 106-94 Special Conditions:**

15. Total VOC emission rate from E-Coat line of 7.7 lbs/hr or 21.5 tons/year, on a 12-month rolling average. From August 1st 2018 to July 31st 2019, IMC emitted 11,016 lbs or 5.506 tons of VOC; approximately 3.15 lbs/hr (See Attachment B).

16. VOC emission rate shall not exceed 3.5 lbs/gal (minus water). The VOC (minus water) content of the coating used is 0.43 lbs/gal. (See Attachment C)

17. No visible emission from any portion of the E-coat paint line. There appeared to be no emissions from the E-coat paint line.

18. Verification of emission rates may be required for operating approval. Stack test not requested at this time.

19. The facility must keep the following records:

a. The total gallons and VOC content (minus water) of each coating used. The facility only uses the POWERCRON BLACK FEED. (See Attachment C)

b. The amount in gallons and VOC content of each reducer used. Mr. Roach said the facility does not use any reducers.

c. Documentation showing the applied VOC content of all coatings used. (See attachment C)

d. Calculations determining a 12-month rolling average VOC emission rate from the E-Coat line. The facility provided monthly VOC emissions. (See Attachment B)

20. Exhaust from the E-Coat dip tank must be discharged unobstructed vertically, and with a maximum diameter of 24 inches and an exit point of no less than 36 feet above ground level. Stack parameters not confirmed during this inspection, however they appeared to be unobstructed.

21. Disposal of collected sludge and waste coatings shall be done in a manner that minimizes additional air contaminants. The facility uses an environmental disposal company to remove its waste from the facility for treatment (See Attachment A)

PTI No. 25-16 Burn-off Ovens Special Conditions:

I(1). 0% visible emissions from FGOVENS for a Six-Minute Average. There were no visible emissions from the stacks.

II(1). The facility shall not burn off more than one cart of paint racks at a time in each oven, and no more than 1920 carts in FGOVENS per 12-month rolling time period. The facility keeps records of the number of carts processed per day. The max number of carts processed per day is two. It appears the permittee is in compliance with the permit limit. I requested the permittee sum the total of carts processed for the month at the bottom of each document. (See Attachment E)

II(2) The facility shall burn only natural gas in each oven in FGOVENS. The only fuel input to the ovens was a natural gas line. Mr. Roach showed us the only fuel line for the ovens which is confirmed as natural gas.

II(3). The facility shall not process any material in FGOVENS, other than cured paints on metal parts, racks and/or hangers. We were shown where the facility keeps the racks to be burned and shown inside the ovens. Only racks were inside the ovens and in the area surrounding. The facility appears to be in compliance with this condition.

III(1). The facility shall not use any oven in FGOVENS for the thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing sulfur or halogens. The facility claims they only burn of the POWERCRON BLACK FEED that builds up on the racks.

III(2). The permittee shall not load any transformer cores, which may be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or rubber, or any waste materials such as paint sludge into FGOVENS. The facility claims they do not load any of the previously stated materials into the ovens, only the racks.

III(3). The permittee shall calibrate the thermocouples associated with the primary chamber of each oven at least once per calendar year. (See Attachment D)

IV(1). The permittee shall not operate any oven in FGOVENS unless an automatic temperature control system for the primary chamber is installed, maintained and operated in a satisfactory manner for each oven. Oven #1 was evaluated at the time of inspection, the temperature control system appeared to be operational. Mr. Roach was able to present calibration records for all the monitors.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

VI(1). The permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. The permittee appears to be meeting the requirements of this condition, keeping all required records.

VI(2). The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (coating) processed in each oven in FGOVENS, including the weight percent of each component. Mr. Roach claimed the only coating they use in the ovens is the POWERCRON BLACK FEED (See Attachment C).

VI(3). The permittee shall keep, in a satisfactory manner, records of the number of carts processed in each oven in FGOVENS, on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month. (See Attachment E)

VI(4). The permittee shall monitor the burn off ovens to verify that they are operating properly, by taking visible emission readings a minimum of once per calendar day during operation of any oven in FGOVENS. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the oven, verify the type of coating that is being burned off the racks and perform any required maintenance on the oven. The facility records whether visible emissions occurs with each run. (See Attachment E)

VI(5). The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGOVENS. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, and status of visible emissions. The facility is keeping records of visible emissions testing. (See Attachment E)

VI(6). The permittee shall monitor and record the operating temperature of each oven in FGOVENS at least once per batch cycle. The permittee shall keep records of the operating temperature for each oven for each batch cycle including the date and time of each batch. The facility keeps record of the oven temperature once per batch cycle. (See Attachment E)

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted. During the last inspection, IMC had rain caps on the burn off oven stacks. They corrected this issue and during this inspection there were no rain caps on the stacks.

Conclusion

The facility has been issued many violation notices for the alleged violations of Rule 901 (Air Contaminant or Water Vapor: prohibition). AQD is working with the facility to resolve these violations.

NAME *J. M. Pratt* DATE 9-27-19 SUPERVISOR *SK*