

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

N514559917

FACILITY: INDUSTRIAL METAL COATINGS INC		SRN / ID: N5145
LOCATION: 6070 18 MILE RD, STERLING HTS		DISTRICT: Warren
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT:		ACTIVITY DATE: 08/27/2021
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site inspection.		
RESOLVED COMPLAINTS:		

On August 27, 2021, I, Joseph Forth, Michigan Department of Environment, Great Lakes, and Energy (EGLE-AQD) Staff, conducted a 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 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. Two of the ovens (ovens 1 and 2) are equipped with afterburners. 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.

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 violation notices to IMC for frequent Rule 901 Odor Violations since 2017. 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. I did not evaluate the odor levels around the facility during this inspection. Violations due to odor are usually issued in response to complaint investigations performed by AQD staff.

Facility Inspection

I arrived at the facility and met with Grace Vigna (Secretary). I stated the purpose of the inspection and presented my credentials. I discussed the required records for compliance with the facility's permits. Next, I was given a tour of the facility. Ms. Vigna had one of the workers give me a tour of the facility. They showed me the four burn off ovens located in the back of the facility. During the inspection, none of the ovens were operating. Two of the ovens (ovens 1 and 2) have now been equipped with afterburners. I was shown that the new afterburners were operational with working temperature monitors. The facility installed afterburners for the ovens in an attempt to remedy the odor issues at the facility.

Compliance

All records were provided electronically and can be located in: S:\Air Quality Division\STAFF\Joe Forth\N5145 IMC FY21 Inspection

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 total. From September 2020 through August 2021, IMC emitted 9892.8 lbs or 4.95 tons of VOC; approximately 5.26 lbs/hr based on a year's operating time. The facility was not keeping 12-month rolling VOC totals. I chose not to issue a violation for this matter as I had not, in past inspections, brought it to their attention they are required to track such records. I provided the facility with a spreadsheet they can use to calculate the required records.

16. VOC emission rate shall not exceed 3.5 lbs/gal (minus water). The VOC (minus water) content of the coating used is 0.41 lbs/gal. The SDS for the coating was provided. The VOC content as applied is 0.16 lbs VOC/gal.

17. No visible emission from any portion of the E-coat paint line. There appeared to be no visible 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. (a,c,d) Not all required records were provided, but as previously stated I will not be issuing a violation for the 12-month rolling records. 19 (b) Facility does not make use of any reducers.

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.

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

I(1). 0% visible emissions from FGOVENS for a Six-Minute Average. The ovens were not operating at the time of inspection, visible emission could not be verified. The facility takes VE readings once per operation period. The facility denotes "L" in the records when there are light or no visible emissions.

II(1). The facility shall not process 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. From September 2020 through August 2021 the facility processed 697 carts. This is the highest 12-month period of the records provided. The facility was not keeping 12-month rolling totals for the carts processed. Again, I have elected not to issue a violation for this matter as I had not brought to their attention that 12-month total records are required during the last inspection. I provided the facility with a spreadsheet they can use to calculate said records.

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 shown to me during the inspection.

II(3). The facility shall not process any material in FGOVENS, other than cured paints on metal parts, racks and/or hangers. The only thing processed in the ovens are the cured paints on the metal racks.

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 (e-coat coating) 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. The permittee provided record of the latest calibrations.

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. Each oven appeared to have a working temperature monitor at the time of inspection. IMC was able to present calibration records for all the monitors. Ovens 1 and 2 have recently been equipped with afterburners. The facility has been only using Ovens 1 and 2 since May 1, 2021.

VI. MONITORING/RECORDKEEPING

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. The facility claims the only coating they use in the ovens is the POWERCRON BLACK FEED.

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. Monthly cart totals were provided. As stated before, I provided the facility with a spreadsheet to track 12-month rolling totals for the carts processed. The facility was not keeping 12-month rolling totals before this point. I have elected not to issue a violation for this matter, as I did not inform them to keep the records after the last inspection.

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.

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.

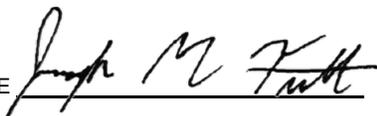
VI(6). The permittee shall monitor and record the operating temperature of each oven in FGOVENS at least once per batch cycle. The permittee shall keep records of the operating temperature for each oven for each batch cycle including the date and time of each batch. The facility keeps record of the oven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

VIII. STACK/VENT RESTRICTIONS

The exhaust stacks for the burn off oven appeared to be venting vertically unobstructed.

Conclusion

The facility has been issued many violation notices for the alleged violations of Rule 901. AQD has proposed a consent order with the facility to agree to requirements to modify their process to reduce odors. IMC appears to not be in compliance with all special conditions for PTI Nos. 25-16 and 106-94.

NAME 

DATE 9/27/21

SUPERVISOR 