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

P045762260

FACILITY: HICKS PLASTICS COMPANY LLC		**SRN / ID:** P0457
LOCATION: 51308 INDUSTRIAL DRIVE, MACOMB		**DISTRICT:** Warren
CITY: MACOMB		**COUNTY:** MACOMB
CONTACT: Nick Nora , Paint Engineer/Launch Engineer		**ACTIVITY DATE:** 02/24/2022
STAFF: Mark Dziadosz	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY 2022 Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, February 24, 2022, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of Hicks Plastic Company, Inc (P0457), located at 51308 and 51335 Industrial Drive Macomb, 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 of 1994, PA 451, as amended, and Permit to Install (PTI) No. 143-15.

I arrived at the Hicks Plastic Company 51308 Industrial Drive address at 10:00 AM and met with Mr. Nick Mora, Plant Manager. During the pre-inspection meeting, we discussed facility's PTI (No. 143-15) and the facility's operations and products. The 51308 address contains plastic injection molding machines and one solvent cleaner. There is no emergency generator, and I did not observe any stacks on the building. This address was not inspected. The PTI was issued for operations at the 51335 Industrial Drive address. The facility produces plastic injection molded parts and performs "vacuum metalizing" and decorative coating for the parts. Decorative finishes include thermal and UV cure basecoat, topcoat, etc. The metalized parts are used in the automotive lamp housings (automotive headlamps, tail lamps, brake lights, etc.) This building houses 6 metallizing chambers, 2 paint booths and 8 plastic injection molding machines. The facility started its operation at this location in 2003 and has 85 employees. It operates 24 hours and 5 days per week. For the metallizing process, the parts are placed in the chamber, vacuum the atmosphere, and fill the chamber with argon. Next, Aluminum or other metal cathode is charged, and the metal plasma is generated using magnets. The aluminum (metal) plasma is coated on the plastic parts. The process takes about 4-6 minutes per load. The exhaust from vacuum process is released to the atmosphere via stacks.

The facility also performs basecoat and topcoat painting. The basecoat application is performed to enhance metallizing. Topcoat application is done for parts longevity. The facility currently has two paint booths (Paint Line #2 and Paint Line #4). Paint Line #4 is a UV coating booth equipped with robotic gun, water wash and IR oven. Mr. Mora indicated this line would soon be removed. Paint Line #2 is equipped with exhaust filters for particulate control. The facility is keeping log of coating materials used per day (27 gallons total in 2021). Mr. Mora told me that they are using the coating as received. The facility is using HVLP

guns for the coating applications. Lacquer thinner is used for the surface cleaning of plastic parts inside the metallizing booths, cleaning guns in the parts washer, etc. The spent solvent is stored with other liquid waste and collected in 55 gal drums which are disposed by Safety Kleen Corp.

Mr. Mora accompanied me for the inspection of the facility. We inspected the metallizing chambers, paint booths, solvent cleaner, plastic injection molding machines, curing ovens, etc. The exhaust filters in the paint booth 2 are replaced as needed. Nick indicated they used to keep a log and replace the filters more frequently but discovered they were disposing of clean filters because the booth is used so infrequently (5 gallons total in 2021). During the inspection, the booth did not appear to have been used recently. The spent filters are bagged and discarded into the trash. The facility has one natural gas fired curing oven for painted parts. The natural gas fired curing oven is operated at between 150°F and 450°F. The oven is manufactured by Wisconsin Oven Corp.

The UV/IR coating line has water wash control system. Mr. Nora told me that they use denatured alcohol to wipe the parts before coating in this booth.
In 2021 Paint line 4 used mostly Paint 1410 which contains 15% Toluene and 25% xylenes.

Paint line 2 uses mostly Paint-1100 which contains about 37% toluene and Paint 1110 (reducer) which contains about 99% toluene. The facility has a mask washer which cleans masking parts used in the painting parts. The washer uses a water-based cleaner that does not contain any VOCs. The washer was in the the process of being dismantled during the inspection and will be scrapped. The facility has also one solvent-based parts washer. The lid was closed during inspection and according to Nick, will not operate unless it is closed. An AQD cold cleaner sticker was posted above the cold cleaner. The surface area of the unit was approximately 4 sq. feet. The used solvent stored in 55-gallon drums. This parts washer is serviced by Safety Kleen Corp.

The processes or equipment at the facility may be exempt from permit to install (R336.1201) requirements pursuant to following exemption rules.

Plastic Injection Molding: R336.1286(2)(b)-Plastic injection, equipment and associated plastic resin handling, storage and drying equipment.

Vacuum Metalizing: R336.1285(2)(i)-Brazing, Soldering, Welding, or plasma coating equipment.

Solvent Parts Washer: R336.1281(2)(h)-Cold cleaners that have an air/vapor interface of not more than 10 square feet.

Mask Washer: R336.1281(2)(k)- Aqueous based parts washers.

Paint Booths and Ovens: R336.1287(2)(c)-A surface coating line if all of the following conditions are met:
i) The coating usage rate is not more than 200 gallons, as applied, minus water, per month.
ii) Any exhaust system that serves only coating spray equipment is supplied with a properly installed and operating particulate control system.
iii) Monthly coating use records are maintained on file for the most recent 2-year period and made available to the air quality division upon request.

R336.1103(k)- Coating line means an operation which is a single series in a coating process and which comprised of 1 or more of coating applicators and any associated flash-off areas, drying areas, and ovens wherein 1 or more surface coatings are applied and subsequently dried or cured.

R336.1632-Emission of Volatile Organic Compounds from existing automobile, truck and business machine plastic part coating lines.

The facility is keeping track of the coating usage and volatile organic compounds (VOC) emissions. From the submitted records the facility's VOC emission per coating line does not appear to be more than 2000 pounds per month or 10 tons per year or 30 tons per year from all coating lines at the facility. Therefore, R336.1632(15)(i)exempts the facility from complying with the requirements of R336.1632 except R336.1632(7).

R336.1632 (7) requires that the facility obtain current information and maintain daily records necessary for the determination of compliance with the provisions of R336.1632, as required in R336.2041 (determine VOC content of the coatings and to calculate VOC emissions).

R336.1707- The solvent cleaner (Parts Washer) is subject to R336.1707. When inspected the parts washer was closed and waste solvent is being stored in 55-gallon drums. According to Nick, the waher will not operate unless it is closed. I did not review any written procedures for the cleaner. However, the AQD cold cleaner stiacker was posted above the cleaner. The cleaner appears to be in compliance with R337.1707.

Mr. Mora provided me copies of the SDS for the mask washer, the most used coatings in 2021 and provided me copies of the 2019-2021 coating usage records and emission rates. The facility is keeping records of the coating usage for each booth and VOC emissions calculations. The submitted records show that facility has used less than 200 gallons coatings in each month in each paint booth.

PTI #143-17 FGFACILITY

SC I.1 and I.2 limits individual HAP emissions to 9 tons per year and aggregate HAP emission to 22.5 tons per year, respectively.

SC V.1: The facility uses manufacturer formulation data to determine HAP content.

SC VI.2a: The facility is tracking each coating material used in gallons and pounds.

SC VI.2b: N/A, the facility does not reclaim any materials.

SC VI.2c: The facility tracks the HAP content of each material used.

SC VI.2d: The facility determines individual and aggregate HAP emissions in tons per month.

SC VI.2e: The facility determines individual and aggregate annual HAP emissions in tons per 12-month rolling time period. The facility is not recording purge and cleanup solvent usage, I told the facility to include purge and cleanup solvents in the individual and aggregate annual HAP emissions in tons per 12-month rolling time period.

The source wide HAPs for 2020 were approximately .0546 tons and .0618 tons for 2021 which are below the permit limit 9.9 tpy for single HAP. The highest 12-month rolling average source wide HAPs occurred in December 2019 (2.75 tons).

The facility has submitted their MAERS report on time each year since 2015. Based on the information gathered during the inspection, Hicks Plastic Company, Inc. appears to be in compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and PTI No. 143-15.

NAME Mark Dziadosz DATE 3/31/2022 SUPERVISOR K. Kelly