DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N207049839

FACILITY: Complete Filtration		**SRN / ID:** N2070
LOCATION: 1776 West Clarkston Road, LAKE ORION		**DISTRICT:** Southeast Michigan
CITY: LAKE ORION		**COUNTY:** OAKLAND
CONTACT: Jason Lewicki , EHS Coordinator		**ACTIVITY DATE:** 08/06/2019
STAFF: Adam Bognar	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Self-Initiated Inspection		
RESOLVED COMPLAINTS:		

On August 6, 2019, Michigan Department of Environment, Great Lakes, and Energy– Air Quality Division (EGLE-AQD) Staff, I, Adam Bognar conducted a self-initiated inspection of Complete Automation & Complete Filtration, located at 1776 Clarkston Road, Lake Orion, MI 48362. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules; and Permit to Install No. 172-18.

I arrived at the facility at around 9 am. I met with Mr. Jason Lewicki, EHS Coordinator. I identified myself, provided credentials, and stated the purpose of the inspection. Mr. Lewicki gave me a tour of the facility.

Complete Automation designs, fabricates, and assembles paint circulation systems for major automotive paint plants. These systems are responsible for getting the paint from the paint mix room to the booth. Customers include nearly all major automakers. Complete Automation began operating at this location approximately 30 years ago.

Attached to the main office building there is a warehouse where cylindrical cartridge filters are assembled. This is the "Complete Filtration" section of the facility. Filter assembly consists of cutting the appropriate filter material to the correct size, bending it into a cylindrical shape, then gluing the cylinder onto metal washer shaped discs that serve as a frame for the filter. This adhesive consists of a two-part epoxy consisting of an Isocyanate and Prepolymer (polyols). The isocyanate and prepolymer and stored in separate vessels until just before application. This epoxy mixture is applied to the circular metal filter frame and the cylindrical filter material is placed on top. The epoxy is allowed to cure at room temperature so that the frame and filter are adhered together.

During my last inspection, on August 14, 2018, I determined that this adhesive line does not qualify for any of the EGLE-AQD permit to install exemptions. Rule 287 (2)(a) exempts adhesive lines from permitting if the adhesive use is less than two gallons per day and has emissions released only into the in-plant environment. Based on the information I gathered in my previous inspection, the total adhesive usage is likely closer to 1000 gallons per month (around 30 gallons per day). A violation notice was sent to Complete Filtration on August 30, 2018 seeking compliance with Rule 201.

In response to the violation notice, Complete Filtration applied for and was issued Permit to Install No. 172-18 for the adhesive application process on November 27, 2018. To comply with this permit, Complete Filtration must maintain daily records of the amount of isocyanate used in the adhesive process as well as the current manufacturer listing of the chemical composition of each adhesive component. The facility maintains these records. Mr. Lewicki was able to show me these records during my inspection. Based on the records I reviewed, isocyanate usage is approximately 200-250 gallons per month.

The Violation Notice from August 2018 may be resolved as a result of this inspection. Complete Filtration appears to comply the conditions of Permit to Install No. 172-18.

In a second warehouse there is one paint spray booth in operation. This booth is used to paint carbon steel parts that are used as scaffolding or framework for their stainless-steel vessels/equipment. Mainly water-based paints are used. The booth is equipped with dry filters. The filters were in place during my inspection. Filters are replaced as needed since booth use varies widely depending on the current project.

Mr. Lewicki provided me with paint purchase records from August 2018 to August 2019. Based on these records the total paint purchased in the past year was 290 gallons including water. The paint booths at this facility

appear to be exempt from Rule 201 requirements pursuant to Rule 287 (2)(c).

The paint storage area was clean and organized. Paint is stored in metal flame cabinets adjacent to the paint booth. Paints appear to be stored using good pollution prevention techniques.

Adjacent to the paint booth, there is one aqueous based parts washer used for paint gun cleaning. The air/vapor interface is approximately 2'x2'. The lid was closed during my inspection. Proper operating Procedures were posted on the parts washer.
The Safety Data Sheet for the parts washer solvent indicates that it is aqueous based and contains 55% by weight citric acid. This cold cleaner appears to be exempt from Rule 201 requirements pursuant to Rule 281 (2)(k) as it is aqueous based.

In a third warehouse there is a fabrication shop. I observed that all of the machining operations were exhausted indoors. A large CNC machine was recently purchased but has not been used. There are also various machining operations located throughout the three warehouses that were all exhausted indoors. These machining operations appear to be exempt from Rule 201 requirements pursuant to Rule 285 (2)(l)(vi). If any of these units were exhausted outdoors, our rules would require that a fabric filtration system be installed in order to qualify for a permit exemption.

There did not appear to be any boilers or emergency generators at this facility. Comfort heating is provided by natural gas fired space heaters that appear to be exempt from Rule 201 requirements pursuant to Rule 282 (2)(b)(i).

I left the facility at around 10 am.

Potential to Emit Hazardous Air Pollutants (HAPs) – The isocyanate used in the adhesive process is considered a HAP by the EPA; however, most of the isocyanate reacts with the prepolymer to form a solid adhesive. Only a small amount of isocyanate is emitted to the atmosphere. AQD permit section estimated that 99.88642% of the isocyanates are converted to an adhesive polymer. This leaves only a small fraction of isocyanates that are actually emitted. AQD permit section estimated isocyanate emissions at around 19 lbs per month, or around 228 lbs per year. This is assuming a maximum possible throughput of 48 gallons of isocyanate are used daily.

Some of the coatings used in the spray booth may also contain HAPs. The booth is operating under Rule 287(2)(c). If 200 gallons per month of a coating consisting of 100% HAPs was used, then the HAP PTE would be around 19,200 lbs. This would bring the total potential HAP emissions from all sources to 19,428 lbs, or 9.7 tons. Facility appears to be a true minor source of HAPs.

Compliance Determination
Complete Automation appears to be operating in compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules; and Permit to Install No. 172-18.

NAME Adam Boger DATE 8/8/2019 SUPERVISOR SK