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

B564468352

FACILITY: Americhem of Michigan, Inc.		**SRN / ID:** B5644
LOCATION: 55 Cottage Grove Street SW, GRAND RAPIDS		**DISTRICT:** Grand Rapids
CITY: GRAND RAPIDS		**COUNTY:** KENT
CONTACT: Jason Lepper , Director of Manufacturing - Compounding		**ACTIVITY DATE:** 07/25/2023
STAFF: April Lazzaro	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Unannounced inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, inspection and met with Jason Lepper, Director of Manufacturing-Compounding and Steve Rogala, Maintenance/Asset Reliability Manager. No odors or visible emissions were observed. Both Mr. Lepper and Mr. Rogala provided information during the inspection which included a pre-meeting, a facility-wide inspection and post-meeting discussion.

FACILITY DESCRIPTION

Americhem of Michigan, Inc. is a plastic compounding facility that makes polyvinyl chloride (PVC) and thermoplastic elastomer (TPE) products which are the basis for both rigid and flexible plastic products. The ingredients are mixed and then extruded into small pellets for use at plastic parts manufacturing operations. The plastics may be used in a variety of industries, including automotive. Mr. Roberts stated that there are no perfluorinated compounds used in the manufacture of the plastics.

This inspection was conducted in response to a recent complaint regarding materials from the process entering a storm drain that was received by the Water Resources Division (WRD), via the United States Environmental Protection Agency which was shared with the Air Quality Division. The substance of the complaint is related to the AQD pursuant to Rule 370 which states that collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. Additionally, the rule states that the collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air.

Permit to Install (PTI) No. 152-18 was issued for the dry blending vessels that are exhausted to a cartridge dust collector. The permit states that the dust collector may vent indoors or outdoors.

The facility also operates two vapor intrusion systems that are exempt pursuant to Rule 290.

There are no boilers and no liquid solvents present at the facility at this time. There are four raw material silos that contain noncarcinogenic solid material and one finished goods silo housed outside the building that are equipped with fabric filter collector systems (bin vent filters) and are exempt pursuant to Rule 284(2)(k). There are raw material tanks housed inside that contain non-VOC, non-carcinogenic liquids that are internally vented. The tanks to not appear to emit a regulated air contaminant, however as they are all less than 40,000 gallons could also be exempt pursuant to Rule 284(2)(i).

COMPLIANCE EVALUATION

PTI No. 152-18

Each of the dry blending vessels at the facility have a hood and associated ventilation ductwork that captures the particulate generated when adding materials to the vessel. The ductwork is vented to the permitted Donaldson cartridge dust collector. The permit has a particulate matter (PM) emission limit of 0.05 lb/hr, and the monitoring method is to monitor and record the pressure drop of the unit once per month. The permittee is also required to implement and maintain a malfunction abatement plan (MAP) for the cartridge dust collector. The MAP was submitted timely on November 14, 2018 and is being followed. The permittee is recording the pressure drop once a month in the maintenance records, and the pressure drop at the time of the inspection was 3.4" H_20. This within the manufacturer's recommendation that it be less than 6" H_2O. It is noted that the company is mostly

keeping weekly pressure drop readings, however there was a gap in the collection of this information in mid-2022 during a staffing changeover. This issue has been rectified by current staff.

A discussion with Americhem, and observations at the baghouse indicate that the cause of the complaint did not originate with the baghouse or the disposal of collected air contaminants from the unit. Overall, the company indicated it was from an accumulation over time of raw material spillage from loading of raw material and general poor housekeeping.

At the time of the inspection, the area was clean and free of debris. Additionally, the company had a service in to clean the access hatch of the material storage silos that are outside, so that their condition can be more closely monitored for any leaks of solid materials in that area. This cleanup was occurring during the inspection.

PTI No. 17-21

PTI No. 17-21 was issued for a residual polymer burn-off oven. During trial operation, Americhem found that the natural gas line that was installed does not supply the correct amount of gas under pressure that is required to properly operate the unit. It never passed trial operations and is not currently in use. They hope to get a proper gas line installed so it can be used in the future, and that process is ongoing with no specific timeline. The local staff will work with their corporate staff to assess whether or not the unit can be operated under the current permit, or if that option is not valid due to the construction of the unit having been possibly interrupted for 18-months. The company should also assess whether the condition that prohibits the use of EU-BURNOFF for the thermal destruction or removal of rubber, plastics, uncured paints or any other materials containing halogens, such as plastisol, polyvinyl chloride (PVC), or Teflon, would prohibit the use of the oven for these materials at the facility.

Plastic Extrusion Processes

There are five (5) single screw, one (1) twin screw and three (3) conical screw plastic extrusion machines with associated pelletizers that are externally vented. The ventilation stacks are located at the extruder for heat exhaust. Each of these appear to be exempt pursuant to Rule 286(2)(a).

Soil Vapor Extraction

The soil vapor extraction (SVE) system, which is exempt from permitting pursuant to Rule 290 consists of two separate fans and exhaust pipes vented through the roof and was installed approximately two years ago. The system was not observed during this inspection. Information obtained during the 2020 inspection found that the combined emissions of trichloroethylene (TCE) at the initial draw of air was 16 pounds per month, which is below the limit of 20 pounds per month established in the Rule 290 exemption. At the time of the 2020 inspection, the facility was conducting quarterly sampling and the results from November 2019 showed emissions were at 0.83 pounds per month for the two exhaust pipes combined. The sampling frequency could be reduced to once per year. If future sampling shows elevated emissions, the company could choose to increase the frequency.

ROOF EVALUATION

Based on Google imagery of the roof, there appeared to have been an emissions event or ongoing emissions being released to the roof and into storm drains there. The roof was accessed and evaluated. There did seem to be some accumulation of fine materials in a few places on the roof, mostly near the storm drains. A visual observation of the general plant ventilation did not identify any one being the source of this material, and no emissions were observed while I was present. The company indicated that they intend to conduct a thorough cleaning of the roof and monitor each general exhaust vent to see if one or more has emissions coming from it. They discussed the installation of a filter to keep any fines or dust from exhausting. Currently, this approach is acceptable to AQD. These findings were shared with Ryan Grant of WRD.

CONCLUSION

Americhem of Michigan, Inc. was in compliance at the time of the inspection.

NAME April Lazzaro DATE 07/28/2023 SUPERVISOR HH