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

N693856074

FACILITY: Aristo-Cote Inc.		**SRN / ID:** N6938
LOCATION: 24951 JOY BLVD, HARRISON TWP		**DISTRICT:** Warren
CITY: HARRISON TWP		**COUNTY:** MACOMB
CONTACT: Adam Delong , Plant Manager		**ACTIVITY DATE:** 11/12/2020
STAFF: Sebastian Kallumkal	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On Thursday, November 12, 2020, I, Sebastian Kallumkal, Michigan Department of Environment, Great Lakes & Energy-Air Quality Division staff conducted a targeted inspection at Aristo Industries, Inc. (SRN: N6938), located on 24951 Henry B Joy Blvd., Harrison Twp., Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and the conditions of Air Use Permit to Install (PTI) No. 21-01C.

Due to COVID-19 Pandemic restrictions, the inspection was previously announced. I arrived at the facility at about facility around 10:00 AM. I met Mr. Adam Delong, Plant Manager. Other facility contacts were not available at that time. I introduced myself, provided my credentials and stated the purpose of the inspection. We discussed changes at the facility's operations and current permit requirements.

On October 14, 2020, I received an email from Kim Wright, (kim@aristoind.com) who manages the AQD related files, stating that 95% of the racks produced by the facility is powder coated and only 5% of the racks are coated using liquid coatings. He also provided coatings usage of September 2010- August 2020. The spreadsheet showed that the coating usage 907 gallons and VOC emissions were 1272 pounds. The coatings do not contain any HAPs. He also stated that to improve plasma operation, in May 2019, facility installed a down -flow vertical dust Collection system.

PTI No. 21-01C has no opt-out limits HAPs which was included in the previous PTI.

After the pre-inspection meeting, Adam assisted me for an inspection of the facility. The previous LASER cutter in no longer in use. They have a new LASER cutter which only exhaust emissions to the general in-plant environment. This process is exempt from Permit to Install requirements pursuant to R336.1285(I(vi)(B). They are keeping records of the LASER cutter operating time (See attached).

Next, we inspected the Plasma cutting process (EU-PlasmaWest). This is a robotic plasma steel cutting station with a horizontal pickup duct with slotted hood close to the cutting point, and a large canopy hood over the entire robot and cutting area. I observed that the emissions from the cutting point are controlled by a cyclone dust collector (inside the cutting area) followed a baghouse (in the plant outside of the cutting area) The emissions are exhausted to atmosphere through a stack. They are keeping records of the Plasma cutter operating hours and VE readings (See attached). This process was not operating at the time of my inspection.

We went outside to inspect the Plasma Cutter stack. The height of the stack was just about the height of the roof and had a rain cap. I informed him that the stack needs to be extended above the roof (General Engineer Practice recommendation is that stack

height needs to one and a half times the building height). On November 13th, he sent me picture of the stack that showed it was extended and with no rain cap.

Next, we inspected the four coating lines. Three coating lines are powder coating and one liquid coating. The powder is not recycled. The over spray powder is controlled using filters and same for the liquid coating. I observed that the filters were not in place and not completely covering the exhaust. I informed Adam that if the filters were not installed properly the powder may be exhausted outside and could cause fallout complaints. He informed that he would correct the issue immediately. Later, in the afternoon, he sent me pictures showing that the filters are in place properly. This process was not operating at the time of my inspection.

PTI No. 21-01C

EU-PlasmaWest

The facility is keeping records of the operating hours and the daily hours operated are less than 20 hours. Visible emissions are taken when operated and no visible emissions noted per the submitted records. The stack dimensions appear to meet the requirements.

The installation of the differential pressure monitor and records of readings were not verified at the time of the inspection. The permit requires that cyclone dust collector be equipped with a differential pressure monitor and readings be recorded once daily.

On December 15th, Adam informed me that the cyclone is not equipped with a differential pressure monitor. Next day, we discussed it over the phone. He informed me that he hasn't seen pressure monitor for the cyclone. I explained to him the permit conditions. He offered to verify the installation and contact the cyclone manufacturer.

The cyclone is a new addition to the Plasma Cutting process and was installed after last AQD inspection (11/2018). The baghouse has four filters and a tray. These filters are cleaned once every three months following manufacturer recommendations.

The facility is required to monitor the pressure differential between inlet and outlet of the cyclone (Pressure differential is a function of inlet gas velocity, and changes in velocity result in changes in pressure differential across device).

On December 17th, Adam sent me the log of differential pressure monitoring and a picture of the monitor.

The plasma cutting process, a thermal cutting process, may emit hazardous pollutants such as Chrome VI, Manganese, etc. depending on the metal being cut and particulate matter. With the requirement of using control devices and with the operating limits specified in the permit, the particulate emissions from plasma cutting can be low. The permittee needs to comply with the control and operating requirements in the permit to keep emissions low.

FG-ALL-Lns

Currently three coating booths are converted to powder coating and one booth is still in liquid coating (mostly for repair work). The change happened about a year ago. The VOC emissions while all the lines were using liquid coatings appear to be less than 30 TPY. The facility used about 907 gallons of coating for September 2019 through August 2020 and VOC emissions were about 1272 pounds. All liquid coatings are water-based (approximately 1.2 lb VOC/gal). The facility is keeping appropriate records. The coated parts are cured in natural gas fired ovens.

The coating line which uses liquid coating could exempt from permit to install requirements (R336.1201) pursuant to Rule 287(2)(c) and the powder coating lines could be exempt from permit to install requirements pursuant to Rule 287(2)(d).

R 336.1287 (Rule 287) Permit to install exemptions; surface coating equipment.

(1) This rule does not apply if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met.

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(a)….

(b) ….

(c) A surface coating line if all of the following conditions are met:

(i) The coating use 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 dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.

(iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the department upon request.

(d) A powder coating booth and associated ovens, where the booth is equipped with fabric filter control. The fabric filter control shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the owner or operator shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in a manner.

The facility has about 38 welding booths which are exhausted inside the general in-plant area. The welding processes are exempt from permit to install pursuant to Rule 285(2)((i). The other processes in metal fabrication such drilling, sawing, grindings are also exempt from permit to install requirements pursuant to Rule 285(2)(l)(B) because these activities are vented into the general in-plant area.

FGFACILITY

The coatings shall not contain HAPs. The facility had submitted a letter from the supplier that the liquid coatings do not contain HAPs. The powder coatings also do not contain HAPs.

Discussion:

PTI No. 21-01C has requirements for the plasma cutter (EU-PlasmaWest), FG-All-Lns (4 coating lines) and FGFACILITY. The coating lines could be exempt from permit to install requirements, as discussed above. The facility shall install appropriate fabric filters for the powder coating booths to prevent powder materials from venting to the atmosphere.

The FGFACILITY requirements are related to the coating lines that HAP containing coatings shall not be used.

Conclusion:

Aristo Industries appears to be in compliance with all applicable air quality regulations and the requirements of PTI No.21-01C.

NAME Sebastian Kallenkal DATE 02/23/2021 SUPERVISOR Joyce