

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

P068667802

FACILITY: ADVANCED ARCHITECTUAL PRODUCTS		SRN / ID: P0686
LOCATION: 3393 S M-40, HAMILTON		DISTRICT: Kalamazoo
CITY: HAMILTON		COUNTY: ALLEGAN
CONTACT: Gary Hales, Plant		ACTIVITY DATE: 02/08/2023
STAFF: Cody Yazzie	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On February 8, 2023 Air Quality Division (AQD) staff (Cody Yazzie) arrived at 3393 South M-40, Hamilton Michigan at 10:30 AM to conduct an unannounced air quality inspection of Advanced Architectural Products (hereafter A2P) SRN (P0686). Staff made initial contact with an A2P employee and stated the purpose of the visit. The employee got in contact with Gary Hales, A2P, Plant Manager, who is the environmental contact and was able to conduct the inspection.

A2P produces fiberglass girts, which are horizontal members inside framed walls to hold insulation panels in place. The operation includes resin mixing, six pultrusion molding lines, and sawing of the finished product. A2P currently operates on two 12-hour shifts. A2P has roughly 25 employees currently. A2P is located inside a facility with other businesses.

A2P was last inspected by the AQD on February 21, 2019 and appeared to be in Non-compliance at that time with PTI No. 31-16B. Staff asked, and Mr. Hales stated that the facility does not have any boilers or cold cleaners.

Mr. Hales gave staff a tour of the facility. Required personal protective equipment are safety glasses, steel toe boots, and hearing protection. Staff observations and review of records provided during and following the inspection are summarized below:

FGFACILITY:

A2P has a facility wide limit on HAP's and Styrene. The facility is required to keep facility monthly HAP and Styrene emissions. The Styrene appears to be the only HAP emissions that comes from the facility. Staff was provided with emission records from July 2021 through December 2022. The facility does appear to be complying with the individual HAP limit of 8.9 tons per year calculated on a 12-month rolling average and the Styrene limit of 8.7 tons per year. The largest Styrene and individual HAP usage since July 2021 occurred in December 2022 using 4.47 tons per year of Styrene. Since Styrene appears to be the only HAP used in operation the aggregate HAP limit also appears to be in compliance. The facility keeps records of the resin batch formulas that indicate CAS numbers, Component name, and indication if the component is a HAP. Review of the formulas appears to show Styrene is the only HAP used in the resin batch formulation.

FGPULTURSION:

The operation starts in with EUMIXING. The facility mixes its own resin in a room located on the North side of the pultrusion operation. A2P uses two formulas for their resin that is mixed. The facility is tracking the amount of styrene content per batch. The facility is keeping record of components of the formulas, and which are VOC/HAPs. Both formulations have a Styrene content of 23.9% by weight. These Styrene contents appear to be in compliance with the 25% by weight

Styrene content limit in Special condition II.1 in Permit No. 31-16C. During the inspection it was observed that the mixing room did have buckets and storage containers filled with what looked like waste solvents/resins that had lids removed while they were not in use. Staff mentioned to Mr. Hales that Special Condition III.1 requires that all waste cleanup solvents, catalyst, and resins be stored in closed containers. Staff mentioned to Mr. Hales that this is a violation of the condition. Staff did tell Mr. Hales that if he could provide a picture shortly after the inspection with the containers correctly stored that Staff would consider the issue resolved. Mr. Hales provided a picture of the containers along with a newly posted sign to remind workers to close the containers when not in use. Staff deemed that facility had resolved the issue.

It was explained during the inspection that EULINE1 and EULINE6, which are the open pultrusion lines are primarily used for R&D purposes and do not operate as often as the enclosed lines. During the inspection EULINE1, EULINE2, EULINE3, EULINE4, and EULINE5 were all in operation.

Special Condition III.3 requires that EULINE2, EULINE3, EULINE4, and EULINE5 shall not operate unless a malfunction abatement plan (MAP) is submitted to the department, implemented, and maintained. As mentioned in the previous inspection report the facility has submitted a MAP. The MAP describes system components that can malfunction, steps that need to be taken in the event of a malfunction, who should be notified, and what needs to be recorded.

The facility has six pultrusion lines in total. EULINE2, EULINE3, EULINE4, and EULINE5 enclose the wet area of the open bath. The enclosures fully cover the wet area of the system with the access panels that are available to be opened if adjustments need to be made while the line is operating. PTI 31-16C does contain time restrictions on the amount of time the enclosure may be removed from the pultrusion line. The time restrictions do not apply if the open area of the enclosure does not exceed two times the puller window area. The facility has determined that the maximum access panels that can be open are two access panels while the pultrusion line is operating. Since the facility is operating 24-hours per day the maximum allowable time the facility can exceed the enclosure exposing an open area greater than 2 access panels is 90 minutes per day. The facility is currently tracking minutes that the enclosure is open. The records include a described area that is open, how long the enclosure was open, and the operator that encountered the incident.

The facility is keeping monthly VOC emission calculations. The emission calculations provide the individual components of the Resin Mix. The VOC content, pounds per batch, and total batches mixed for the month for both the enclosed and open pultrusion lines. The facility uses the number of batches, the total VOC content and Styrene content per batch, the Styrene emission factors for closed and open pultrusion processes (2.8% and 7%) to calculate these emissions.

Staff was provided with emissions calculations for the time period of July 2021 through December 2022. Since July 2021 the largest number of resin batches that the facility mixed was 536 batches in November of 2022. The largest 12-month rolling VOC emissions occurred in December 2022. The facility reported 5.83 tons per year of VOC which is well below the permitted limit of 9.8 tons per year. The facility appears to be calculating the total VOC and styrene emissions correctly.

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in compliance with PTI No. 31-16C. Staff stated to Mr. Hales

that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 11:30 AM.-CJY

NAME Cody Yezzer

DATE 7/5/2023

SUPERVISOR RIL 7/5/23