

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

N007262819

FACILITY: AACTRON INC		SRN / ID: N0072
LOCATION: 29306 STEPHENSON HWY, MADISON HTS		DISTRICT: Warren
CITY: MADISON HTS		COUNTY: OAKLAND
CONTACT: Erik Kafarski , President		ACTIVITY DATE: 03/29/2022
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2022 Fiscal year on-site inspection.		
RESOLVED COMPLAINTS:		

On March 29, 2022, I conducted a scheduled inspection of Aactron, Inc. located at 29306 Stephenson Highway, Madison Heights, Michigan. This facility is uniquely identified by the Air Quality Division with the State Registration Number (SRN) of N0072. Mark Dziadosz, Senior Environmental Quality Analyst, accompanied me during this inspection. 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; Rule 208a registration; and the conditions of General Permit to Install (PTI) No. 170-02 and HAPs Opt-Out PTI No. 140-16.

Aactron is a metal pretreatment and surface coating facility that coats parts for military and automotive customers.

PERMITS

Aactron operates its phosphate line and surface coating (paint) line per General Permit to Install (PTI) No. 170-02 and HAPs Opt-Out PTI No. 140-16.

PTI 170-02

General Permit to Install (PTI) No. 170-02 limits VOC emissions to 2000 lbs./month per coating line, 10 tons per 12-month rolling time period, and 30.0 tons per year from all coating lines and all associated purge and clean-up operations.

PTI No. 140-16

On September 22, 2016, the AQD approved PTI No. 140-16. This permit is a HAP (Hazardous Air Pollutant) Opt-Out permit, which means it contains legally enforceable limits on the emission of individual HAPs to 9.0 tons per year (tpy) and

aggregate HAP emissions to 22.5 tpy. By accepting these HAP emission limits, Aactron has opted out of the Title V Renewable Operating Permit program.

It should also be noted that during the permit review process it was agreed between Vrajesh Patel, AQD Permit Engineer, myself, and Erik Kafarski, President, that special condition number VI.1 would be changed from requiring the permittee to complete all required calculations from the 15th day of the calendar month to the last day of the calendar month. This was necessary to accommodate Aactron's monthly accounting and inventory schedule. Unfortunately, this agreed-upon change was not incorporated in the approved permit. On March 31, 2017, PTI No. 140-16 revision 1 was approved by the AQD.

BOILER

Aactron has one Cleaver-Brooks, Model CB 700-100, Serial Number L-104491, natural gas-fired boiler that is used to provide heat for the phosphate coating lines. This boiler has a heat input rating of 4,184,000 Btu/hr. (note: I had previously misread the boilerplate as indicating 4,164,000 Btu/hr.). This boiler is for service water heating, which appears to be exempt from the permit requirements of R 336.1201(1) per R 336.1282(b)(i). This natural gas-fired boiler also appears to be exempt from 40 CFR Part 63 Subpart JJJJJJ (*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*) per §63.11195(e) and per the definition of a gas-fired boiler as defined in §63.11237. This boiler is tagged with State Boiler # M426514M. This boiler was manufactured in 2005.

SURFACE COATING

I observed each coating line. The chain-on-edge coating line (COE1 and COE2) consists of two adjacent spray booths and is configured as a single spray booth. Since the previous inspection, Aactron removed the chain-on-edge parts conveyor system. I observed that the particulate filters were installed in an overlapping pattern. I expressed concern that the overlapping particulate exhaust filters were not firmly sealed against each other, which created the potential for particulates to bypass the control media. We discussed what the AQD would consider the compliant installation of particulate filters. On April 12, 2022, Aactron documented a satisfactory correction by purchasing and installing filter media that is large enough to cover each spray booth exhaust without the need to overlap filter media. Because Aactron corrected the filter media installation in a timely manner and the potential for exhaust bypass was small, enforcement discretion was applied, and a violation notice was not issued.

I observed the two dip-spin coating lines (DS1 and DS2). These coating lines do not have dedicated exhausts and do not require particulate emission control. The dip-spin coating lines continue to be used on a limited basis.

I observed stand-alone spray booths nos. 1, 2, and 3 (SB1, SB2, and SB3). SB1 is a primer booth for the overhead conveyor line. SB2 is the middle spray booth. SB3 is the topcoat booth for the overhead conveyor line. The aforementioned filter installation bypass issue was observed and corrected on these spray booths as well.

I also observed three curing ovens, one overhead curing oven, and one parts drying oven that is used to dry parts after the phosphate line. All ovens associated with the spray booths are included in the general surface coating permit to install. The natural gas-fired oven used to dry parts after the phosphate surface treatment appears to be exempt from R201 per R281(2)(e). The R281(2)(e) exemption appears valid because the parts leaving the phosphate surface treatment line are thoroughly rinsed with water and therefore air contaminants are not expected to be released during the drying process.

PHOSPHATE LINE

During the inspection of January 28, 2015, I observed that Aactron had recently purchased and was in the process of installing a used automated phosphate metal surface treatment line. As of the March 29, 2017, and the March 29, 2022, inspections the new automated phosphate line was installed but was not operating because the system is pending a computer update. Both phosphate metal surface treatment lines appear to be exempt from the R 336.1201(1) requirement to obtain an approved air use permit to install per R 336.1285(2)(r).

R 336.1280(2)(b) EXEMPTION APPLICABILITY

During my previous inspection of Aactron on August 3, 2016, I raised a question regarding the exempt status of exhaust fans that are mounted on the south wall near the manually operated original phosphate line. Due to the proximity of the exhaust fans to the phosphate line, I was concerned that the exhaust fans may not qualify for the R 336.1280(2)(b) exemption from R 336.1201 even though the ventilating system is not designed to remove air contaminants generated by, or released from specific units of equipment. Per the phosphate line emission calculations, I received from Aactron in September of 2016, the phosphate line appears to also be exempt from R 336.1201 per R 336.1290. Therefore, the ventilation fans appear to be exempt from the permitting requirements of R 336.1201.

On March 29, 2022, I reviewed my applicability determinations. Per my recent discussion with Ronald Wroblewski, Plant Manager, spray booth makeup air is vented from the paint room southwards to the phosphate room and then vented to the outside environment. The ventilation direction through the building is from north to south to prevent dust and moisture from entering the paint room. Therefore, it

continues to appear the exhaust fans on the south wall of the building are exempt per R 336.1280(2)(b).

The paint room is located on the north side of the building. The Bananza air makeup unit is located outside and adjacent to the west wall of the paint room. The air makeup system can provide filtered ambient air or heated and filtered ambient air. The air makeup system is used to make up air exhausted by the coating line exhausts. For dust and humidity control, air flows from north to south through the production areas.

RECORDKEEPING AND EMISSIONS

During this inspection, I received and reviewed emission calculation records. The records covered 24 months from December 2019 through January 2022. The records appear to demonstrate compliance with the VOC emission limits specified in the general surface coating PTI No. 170-02, which is 2000 pounds per month and 10 tons per year, per coating line. The two most informative records for compliance determination are the total monthly VOCs and the 12-month rolling total VOCs. Records indicate that during the previous 24-month period, the highest monthly total VOC emissions was 0.87 tons per month, which indicates that each emission unit complied with the monthly 2000 pounds VOC emission limit during this time period. Records also indicate that the highest 12-month rolling total VOCs was 6.85 tons per year, which indicates that this facility appears to comply with both the 30 tpy VOC limit as well as the individual HAP limit of 9.0 tpy and the aggregate HAP limit of 22.5 tpy.

CONCLUSION

Aactron Inc. appears to be in compliance with all evaluated permit conditions and air pollution control rules.



Image 1(IMG_0299.JPG) : Former chain-on-edge spray booth. Note the gap in the overlapping exhaust filters on the left. The gap presents a potential bypass path.



Image 2(image000000(4).jpg) : RESOLUTION OF COMPLIANCE CONCERN: April 12, 2022, Image of new dry filter media and installation, which appears to correct the AQD's concerns about the potential of exhaust

bypassing the control device.

NAME Robert Elmarachi

DATE 5/9/2022

SUPERVISOR Joyce