

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

N642066330

FACILITY: AAR Mobility Systems		SRN / ID: N6420
LOCATION: 1405 Sixth Ave, CADILLAC		DISTRICT: Cadillac
CITY: CADILLAC		COUNTY: WEXFORD
CONTACT: Greg R. Shay , Environmental Specialist		ACTIVITY DATE: 01/05/2023
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site Inspection & Records Review		
RESOLVED COMPLAINTS:		

On Thursday, January 5, 2023, Caryn Owens of EGLE-AQD conducted an on-site field inspection of AAR Mobility Systems (SRN: N6420) located at 1405 6th Avenue in Cadillac, Wexford County, Michigan. More specifically, the site is located west side of 6th Avenue, just north of 8th Street. The field inspection and records review were to determine compliance with permit to install (PTI) 27-98B. The site is currently an area (a synthetic minor) source for hazardous air pollutants (HAPs) and a synthetic minor source of volatile organic compounds (VOCs). PTI 27-98B indicates that the facility is subject to the following National Emission Standard for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products in 40 CFR Part 63, Subpart M. However, since this facility has taken limits to opt-out of major source status for HAPs, the facility is not subject to 40 CFR Part 63, Subpart M.

Evaluation Summary

The activities covered during this field inspection and records review appear to be in compliance with PTI 27-98B. Review of the records for the facility indicates the facility was in compliance with emission limits in accordance to the PTI. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

Source Description:

The weather Conditions were cloudy, about 33 degrees Fahrenheit, and calm winds about 5 to 10 miles per hour from the southwest. EGLE was accompanied by Mr. Greg Shay, the Environmental Specialist for AAR Mobility Systems during the field inspection. The facility consists of one large industrial building and associated parking lots. AAR manufactures specialized air cargo transportation equipment for the military including containers used for various types of shelters, which is a continuation from EUCONTAINERLINE from AAR's Haynes Street location in Cadillac. The containers are converted into various cargo such as military shelters or housing for electronics. The processes in the manufacture of these products include woodworking, metal preparation and machining, paint application, and assembly. The parts of the containers and /or the containers themselves go into to a washer then into one of two paint booths and then into an oven to dry. The facility uses high volume low pressure (HVLP) handheld spray guns. During the inspection, there were no coating activities in process. I reviewed the forms where AAR records the shift, type of material used, the part number, the material usage in gallons, and the hours it took to coat the parts on a daily basis. The purge from the guns and cleanup are stored in 55-gallon drums which are collected by a contractor approximately every 90 days for disposal. Each paint booth also contains a parts washer. The lids were closed on the parts washer when AQD walked through the paint booths.

Since the previous inspection, there has been a new powder coat paint booth installed at the facility. The powder coat is applied with HVLP spray guns, and the paint booth is equipped with fabric filters. The oven is fired by natural gas combustion with a burn rate of 1MMBtu/hr rating. This new paint booth is used for small parts that are used for the containers. The Company claims the powder coat paint activities and associated oven are covered under AQD's Rule exemption R 287(2)(d).

Assembly of the cargo containers involves cutting openings in the sides of the pallets, and welding parts and pieces together. The cutting operations are in a designated area of the building with fabric filters and do not vent to the outside. The welding activities are in another designated area of the building. The company claims that the cutting activities are covered under AQD's Rule exemption R 285(2)(l)(vi)(C), and the welding activities are covered under R 285(2)(i). There is a wash area on the west side of the building that is used to verify the containers are completely waterproof and have no leaks. There are two steam operated presses with their own small natural gas boiler system on the northern side of the building to form container walls. One of the presses is currently not being used at the facility. The company claims the natural gas boiler system meets exemption R 282(2)(b)(i).

Records Reviewed

FGCOATING: This flexible group applies to two coating booths (EUBOOTH1 and EUBOOTH2) that contain a paint bake oven for cargo containers for extreme performance spray coating with two-part epoxy paints, water based paints, and other coatings. This flexible group also contains EUCLEANUP for the clean-up of equipment with VOC based solvents.

- **Emission Limits:** VOC emissions are limited to 40 tons per year based on a 12-month time period and 220 pounds per calendar day. Based on the records reviewed from December 1, 2021 through November 30, 2022, the highest VOC emissions reported were 0.22 tons based on a 12-month rolling time period, and 23 pounds per day.
Acetone emission are limited to 7.2 tons per year based on a 12-month time period. Based on the records reviewed from December 1, 2021 through November 30, 2022, the highest reported Acetone emissions were 0.035 based on a 12-month rolling time period.

p-chlorobenzotrifluoride (PCBTF) emissions are limited to 90 pounds per day. Based on information from Mr. Shay, no PCBTF coatings are currently used, and haven't been used since prior to December 1, 2021.
- **Material Limits:** VOCs were limited to 3.5 pounds per gallon (minus water, as applied), and PCBTF in gallons was limited to 300 pounds per day throughput. Based on information from Mr. Shay, no coatings are used that contain PCBTF. Based on the records reviewed from December 1, 2021 through November 30, 2022, the highest VOC coating was 3.13 pounds per gallon.
- **Process/Operational Parameters:** During the inspection, EGLE observed waste coatings, reducers, thinners, and purged solvents stored in closed containers. There is a waste storage area in the central portion of the site. The waste generated from the onsite processes are stored in closed 55-gallon drums awaiting proper disposal. All the VOC and HAP containing materials, coatings, reducers, solvents, and thinners observed during the inspection were properly covered.
- **Design/Equipment Parameters:** During the inspection, AQD observed the coating booths where the coatings are applied using HVLP applicators and observed properly installed fabric filters. The fabric filters are connected to pressure gauges that are monitored, and the fabric filters are changed on a regular basis.
- **Testing Requirements:** AAR uses ACIMS to complete the Method 24 analysis of each coating. Each coating is tested using ACIMS when it is purchased and the VOC content, water content and density of all coatings are documented as applied and as received.
- **Monitoring/Recordkeeping:** AAR keeps a current listing of each coating on file, as well as: a listing of each coating, reducer, and purge and cleanup solvents; the VOC content of each coating and reducer as applied, minus water, and as received; the daily usage rate; daily hours of operation; daily VOC emission calculations of coatings applied; and VOC emission calculations of coatings applied to calculate monthly and 12-month rolling time period emission rates as determined at the end of each calendar month. Additionally, AAR maintains records for PCBTF that include gallons of each PCBTF containing material used per day; PCBTF content (with water) in pounds per gallon when PCBTF containing coatings are used. AAR completes all calculations and maintains records in an acceptable manner.
- **Reporting:** No Reporting Requirements are associated with FGCOATING.
- **Stack/Vent Restrictions:** Based on visible observations during the field inspection, the stacks of the spray booths appeared to be within the permitted limits
- **Other Requirements:** No Other Requirements are associated with FGCOATING.

FGFACILITY:

- **Emission Limits:** Emissions are limited to less than 9 tons per individual HAP and less than 22.5 tons aggregate HAPS. Compliance with these limits is demonstrated through calculation of emissions based on emission factors associated with usage rates. Records of HAPS emission are attached. The most used HAP was from the Bisphenol A coating. The highest total HAP combined emissions over the last 12 months were 0.007 tons per 12-

month rolling time period.

- **Material Limits:** No Material Limits are applicable for FGFACILITY.
- **Process/Operational Parameters:** No Process/Operational Parameters are applicable for FGFACILITY.
- **Design/Equipment Parameters:** No Design/Equipment Parameters are applicable for FGFACILITY.
- **Testing Requirements:** AAR uses military specific coatings that are batch tested. Records regarding the this was available on-site.
- **Monitoring/Recordkeeping:** AAR maintains monthly records required for FGFACILITY for materials containing HAPs, which include: pounds of each material used; pounds reclaimed; HAP content in pounds per pound of each material used; individual and aggregate HAP emissions calculations in tons per calendar month; and individual and aggregate HAP emission calculations in in tons per 12-month rolling time period. AAR completes all calculations and maintains records in an acceptable manner.

Daily records are completed by operators and were observed at the time of the January 5, 2023 inspection. The daily and monthly records are kept by the Facility and consist of daily logs completed by operators, ACIMs data and resulting spreadsheets summarizing the required data. Records maintained appeared to be in compliance with permit conditions.

- **Reporting:** No Reporting Requirements are associated with FGFACILITY.
- **Stack/Vent Restrictions:** No Stack/Vent Restrictions are associated with FGFACILITY.
- **Other Requirements:** As previously stated in the in the beginning of this inspection report, PTI 27-98B indicates that the facility is subject to the NESHAP for Surface Coating of Miscellaneous Metal Parts and Products in 40 CFR Part 63, Subpart Mmmm. However, since the facility has taken limits to opt-out of major source status for HAPs, the facility is not subject to 40 CFR Part 63, Subpart Mmmm. Therefore, no Other Requirements are associated with FGFACILITY.

NAME  DATE _____ SUPERVISOR _____