

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

N325457498

FACILITY: MAC VALVES INC		SRN / ID: N3254
LOCATION: 30569 BECK ROAD, WIXOM		DISTRICT: Warren
CITY: WIXOM		COUNTY: OAKLAND
CONTACT: Dave Meinke , Facility Engineer		ACTIVITY DATE: 03/16/2021
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site Inspection and digital records evaluation.		
RESOLVED COMPLAINTS:		

On March 16, 2021, MDEQ AQD staff Joe Forth and Kaitlyn Leffert conducted a scheduled inspection of MAC Valves Inc. (N3254) located at 30569 Beck Road, Wixom, MI. 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; the conditions of Air Use Permit to Install (PTI) No. 130-94A.

Facility Description

MAC Valves manufactures and assembles pneumatic air valve systems. The facility consists of various CNC and other machining equipment. There is a metallic surface coating line consisting of two automated and one manual paint spray booths and two paint bake ovens. MAC Valves also has a chemical dip chlorination process to surface harden rubber. There are a backup generator and water boiler at the facility. The backup generator appears to be exempt from permitting per Rule 336.1285(2) (g) as the rated heat input is 167 HP or 425,000 BTU/hr. The engine appears to be subject to 40 CFR 60 Subpart JJJJ. The facility was not currently keeping a record of any non-emergency operation of the engine. Mr. Meinke stated that the engine is only used during power outages. Regardless, I requested that MAC create a sheet to keep track of non-emergency operation in the future, in order to comply with the subpart. MAC Valves will be issued a violation for this discrepancy. The boiler has a rated heat input of 852,800 BTU/hr making it exempt from permitting per Rule 336.1282(2)(b)(i). The boiler does not appear to be subject to 40 CFR 60 Subpart Dc or 40 CFR 63 Subpart JJJJJJ. The facility operates Monday through Friday 4:00 am – 1:30 pm and occasionally Saturdays. MAC Valves employs 385 workers. The building is shared with Great Lakes Rubber which is permitted under a separate SRN. Great Lakes Rubber's compliance was reviewed by AQD Staff Kaitlyn Leffert.

Facility Inspection

We arrived at the facility at 9:00 am. We were met by Dave Meinke and Tom Leonardo, Facility Engineer. I introduced myself, provided my credentials and stated the purpose of the inspection. We began by reviewing the conditions and collecting records. Then, Mr. Meinke and Mr. Leonardo showed us around the facility. The two automated coatings have a conveyor type system that moves the parts along to be coated and cured. The booths appeared to be properly maintained with filters installed properly. Mr. Meinke stated that the filters can be changed possibly multiple times a day depending on production volume. I was shown the chlorination process. It consisted of several dip tanks used to harden rubber that is used in the valves. Mr. Meinke told us that they may look to replacing the boiler this year, I instructed him to notify myself and the permit section if he does. The new boiler will need to be reviewed to see if it needs to be permitted. The rest of the facility is consisted of machining tools and storage. We went on to the roof to inspect the stacks. All process stacks for the coating line were discharging unobstructed vertically. The stack for the chlorination process was corrected since last inspection and now discharges unobstructed vertically.

Records were collected electronically and can be located in: S:\Air Quality Division\STAFF\Joe Forth\N3254 MAC Valves FY21 Inspection

PTI No. 130-94A

Special Conditions

I.1 VOC emission limit of 12.5 lb/hr. The AQD has not yet requested the facility perform testing to verify compliance with this limit. Compliance with the limit is demonstrated through testing at EGLE's request.

I.2 VOC emission limit of 43.0 tons/year. The facility is in compliance with the VOC 12-month emission limit. The highest 12-month rolling time period ended in August 2020 and was 6.12 tons of VOC.

I.3 VOC emissions from the coating line shall not exceed the following emission rates:

- a. 3.5 pounds of VOC emitted per gallon of coating, minus water, as applied for "extreme performance coatings". Mr. Meinke stated the facility only uses "extreme performance coatings". The permittee provided VOC calculation documents that show the VOC content minus water. The blue coating has 2.92 lbs VOC/gal and the black 3.40 lbs VOC/gal.**
- b. 3.5 pounds of VOC emitted per gallon of coating, minus water, as applied for "air-dried coatings". The facility only uses "extreme performance coatings".**
- c. 3.0 pounds of VOC emitted per gallon of coating, minus water, as applied for all other coatings. The facility only uses "extreme performance coatings".**

I.4 There shall be no visible emissions from the coating line. I did not detect any visible emissions from the coating line at the time of inspection.

IV.1 Permittee shall not operate the coating lines unless all exhaust filters are installed, maintained and operated in a satisfactory matter. The filters for the coating line exhausts appeared to be properly installed and are replaced up to multiple times per day depending on production volume according to Mr. Meinke.

VI.1 The permittee shall keep a separate record for each calendar month of the following for the coating lines

- a. For each coating sprayed:**
 - i. The coating identification and the coating category. Facility provided coating identification (SDS).**
 - ii. The VOC content in pounds of VOC per gallon of coating (minus water) as received and as applied. Facility provided VOC content minus water (SDS).**
 - iii. The VOC content in pounds of VOC per gallon of coating as applied. The facility applies and calculates the emissions using the minus water coating.**
 - iv. The amount in gallons of coating used as applied. The facility provided daily usage records of each specific coating used.**
 - v. The VOC content in pounds of VOC per gallon of each reducer, and the amount in gallons of each reducer used, as applied. The facility does not use any reducers.**
- b. VOC emission calculations for each coating category determining a 2-month rolling average VOC emission rate in tons per year. I assume this was an error in the permit and it is instead meant to be 12-month rolling average. The facility provided 12 month-rolling average for VOC emissions.**
- c. The amount in gallons of cleanup and purge solvents used and reclaimed. The facility does not use any cleanup or purge solvents.**

VII.1-5 The exhaust stacks for EU00001 (the coating lines) were all venting vertically unobstructed. Stack parameters not confirmed during this inspection.

EU00002

I.1 Chlorine emission limit of 0.24 lbs/hr. The AQD has not requested emissions tests to confirm the emission limit.

I.2 Chlorine emission limit of 0.52 tons/year. The facility is in compliance with this emission limit. The largest 12-month rolling period total for chlorine dating back to January 2016 was November 2017-October 2018 at 0.51 tons.

VII.1 The exhaust stack for EU00002 was venting vertically unobstructed. During the last inspection, the stack was L shaped and not pointing straight up, this has been corrected.

FGFACILITY

Special Conditions

I.1 VOC emission limit of 43.0 tons/year. The 12-month rolling total of VOCs for MAC Valves from March 2020 through February 2021 was 5.86 tons.

I.2 Individual HAP emission limit of 4.0 tons/year. The facility does not utilize any HAP containing materials according to SDS provided.

I.3 Aggregate HAP emission limit of 10.0 tons/year. The facility does not utilize any HAP containing materials according to SDS provided.

II.1 The VOC content of any coating used in FGFACILITY shall not exceed 3.5 pounds/gallon. The VOC content of each coating used at the facility is below 3.5 pounds/gallon. Data sheets showing the VOC content plus and minus water were provided.

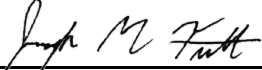
II.2 The permittee shall not use more than 24,000 gallons of VOC/HAP containing adhesives and coatings in FGFACILITY per 12-month rolling time period. MAC Valves keeps track of all VOC containing materials, and does not utilize any HAPs in their process according to SDS provided. The total use of materials appears to be under 24,000 gallons according to the usage records provided.

VI.1 The permittee appears to be completing the calculations by the last day of the month for the previous month.

VI.2 The permittee appears to be keeping records of VOC containing material usage.

VI.3 The permittee does not utilize any HAP containing materials according to SDS provided.

The facility appears to be operating in compliance with PTI No. 130-94A. The facility is not operating in compliance with 40 CFR 60 Subpart JJJJ and will be issued a violation.

NAME 

DATE 7/30/21

SUPERVISOR 