

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N325448196

FACILITY: MAC VALVES INC		SRN / ID: N3254
LOCATION: 30569 BECK ROAD, WIXOM		DISTRICT: Southeast Michigan
CITY: WIXOM		COUNTY: OAKLAND
CONTACT: Amy Kemp , Facility Engineer		ACTIVITY DATE: 03/08/2019
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site Inspection, Violation of PTI No. 130-94A permit conditions.		
RESOLVED COMPLAINTS:		

On March 8th, 2019, MDEQ AQD staff Joe Forth 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. The facility operates Monday through Friday 4:00 am – 1:30 pm and occasionally Saturdays. MAC Valves employs 385 workers.

Facility Inspection

I arrived at the facility at 10 am. I was met by Amy Kemp, 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, Ms. Kemp showed me 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. Ms. Kemp 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. The rest of the facility is consisted of machining tools and storage. I 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, however, had an L-shaped stack which was not venting vertically. This is a violation of the permit requirements. I concluded the inspection and left the facility at 11:30 am.

PTI No. 130-94A

Special Conditions

I.1 VOC emission limit of 12.5 lb/hr. The facility VOC records show low enough emissions that it appears they should meet this limit. The facility calculates the VOC emissions during each shift and divides by run time in order to find VOC lb/hr. On average, it appears that the facility does not exceed 4.0 pounds/hour. AQD has not requested emissions tests. (See Attachment E)

I.2 VOC emission limit of 43.0 tons/year. The facility is in compliance with the VOC 12-month emission limit. (See Attachment A)

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". The facility provided several Safety Data Sheets for their coatings (See Attachments B, C, and D). There are some exceedances of the VOC (minus water) content for their coatings. This is a violation of the permit condition.
- 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 manner. 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.

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). (See Attachments B, C, and D)
 - 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). (See Attachments B, C, and D)
 - iii. The VOC content in pounds of VOC per gallon of coating (plus water) as applied. The facility provided VOC content plus water. (See Attachments B, C, and D)
 - iv. The amount in gallons of coating used as applied. The facility provided daily usage records of each specific coating used. (See Attachment E)
 - 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. (See Attachment A)
- 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. Based on records of chlorine use and emissions, it appears that the facility meets this emission limit. Batches run approximately two hours. AQD has not requested emissions tests. (See Attachment F)

I.2 Chlorine emission limit of 0.52 tons/year. The facility is in compliance with this emission limit. (See Attachment F)

VII.1 The exhaust stack for EU00002 was not venting vertically unobstructed. The stack was L-shaped and venting horizontally. This is a violation of the permit condition. Stack parameters not confirmed during this inspection.

FGFACILITY

Special Conditions

I.1 VOC emission limit of 43.0 tons/year. The facility is in compliance with this limit, the highest reported yearly VOC emission total was 3.53 tons for 2017. (See Attachment A)

I.2 Individual HAP emission limit of 4.0 tons/year. The facility does not use any HAP containing coatings or compounds.

I.3 Aggregate HAP emission limit of 10.0 tons/year. The facility does not use any HAP containing coatings or compounds.

II.1 The VOC content of any coating used in FGFACILITY shall not exceed 3.5 pounds/gallon. The VOC content of each coating (with water) used at the facility is below 3.0 pounds/gallon. (See Attachments B, C, and D)

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 does not use any HAP containing materials. The facility uses approximately 350 gallons of coating per month. For 2018 the facility used

4,569 gallons of VOC containing coatings.

VI.1 The permittee shall complete all required calculations in a format acceptable to the AQD. The permittee appears to be satisfactorily completing all required calculations.

VI.2 The permittee shall keep the following information on a calendar month basis for FGFACILITY:

- a) Gallons or pounds of each VOC containing material used. (See Attachment E)
- b) Where applicable, gallons or pounds of each VOC containing material reclaimed. The facility does not reclaim any of the coatings they use.
- c) VOC content, in pounds per gallon or pounds per pound, of each VOC containing material used. (See Attachment B, C, and D)
- d) VOC emission calculations determining the monthly emission rate of each in tons per calendar month using mass balance or an alternate method acceptable to the AQD District Supervisor. The facility provided monthly VOC emissions calculations. (See Attachment G)
- e) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months. (See Attachment A)

VI.3 The permittee does not use any HAP containing materials.

The facility appears to not be operating in compliance with PTI No. 130-94A. The facility will be issued a violation notice seeking compliance with the permit conditions that are in violation.

NAME *John M. Stone* DATE 5-30-19 SUPERVISOR SK