

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

B891962026

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|---|--------------------------------------|----------------------------------|
| <b>FACILITY:</b> GREAT LAKES RUBBER CO INC    |                                      | <b>SRN / ID:</b> B8919           |
| <b>LOCATION:</b> 30573 BECK RD, WIXOM         |                                      | <b>DISTRICT:</b> Warren          |
| <b>CITY:</b> WIXOM                            |                                      | <b>COUNTY:</b> OAKLAND           |
| <b>CONTACT:</b> Dave Meinke , Safety Engineer |                                      | <b>ACTIVITY DATE:</b> 03/02/2022 |
| <b>STAFF:</b> Kaitlyn Leffert                 | <b>COMPLIANCE STATUS:</b> Compliance | <b>SOURCE CLASS:</b> SM OPT OUT  |
| <b>SUBJECT:</b> FY2022 Scheduled Inspection   |                                      |                                  |
| <b>RESOLVED COMPLAINTS:</b>                   |                                      |                                  |

On March 2, 2022, Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff Kaitlyn Leffert conducted a scheduled inspection of Great Lakes Rubber, located at 30573 Beck Road, Wixom, MI. The source is identified by the Source Registration Number B8919. The purpose of the inspection was to determine compliance with 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; and Permit to Install (PTI) Numbers 146-14A and 174-19.

Great Lakes Rubber is located in the same facility as Mac Valves (N3254) and is considered part of the same stationary source. However, both facilities were permitted separately and have separate emission limits. However, since they are considered one stationary source, HAP emissions must be combined to determine whether the source is a major source. Currently, Mac Valves comprises approximately 80-90% of Great Lake's Rubbers' business. Great Lakes Rubber does have the capability to manufacture other rubber products, but primarily focuses on the manufacture of rubber-coated metal parts for Mac Valves. An inspection of both facilities was done while on-site. The inspection of Mac Valves is documented in a separate report.

Great Lakes Rubber is permitted to operate a curing oven, which is used to cure adhesive coatings from the associated rubber coating process (PTI No. 174-19). In addition, PTI No. 146-14A contains facility-wide volatile organic compounds (VOC) and hazardous air pollutants (HAP) emission limits. Great Lakes Rubber is also permitted to operate a burn-off oven. However, that oven was removed from the Wixom facility and is now located at their Dundee plant. PTI No. 65-19 was issued for operation of the burn-off oven at the Dundee facility, however, the burn-off oven has not yet been removed from PTI No. 174-19.

On February 22, 2022, I contacted Dave Meinke, Mac Valves, about the possibility of inspecting Great Lakes Rubber and Mac Valves the following day, on February 23<sup>rd</sup>. Mr. Meinke let me know that they would not be available for an inspection that day and instead an inspection was scheduled for March 2<sup>nd</sup>.

### Facility Inspection

I arrived at the facility around 9:30 am and met Mark Dziadosz, who was accompanying me on the inspection. We were greeted by Dave Meinke, Mac Valves. We first went to a conference room, where we also met Paul Yahr, Great Lakes Rubber, and Jeff Neiter, Great Lakes Rubber. I explained the purpose of the inspection.

We went over the requested records, including the hazardous air pollutant (HAP) and volatile organic compound (VOC) emissions calculations for both Great Lakes Rubber and Mac Valves. Last

year, Great Lakes Rubber was issued a violation notice for failure to maintain adequate HAP emissions records. Based on a preliminary review at the facility, Great Lakes Rubber appeared to be maintaining all required emissions records. I requested that copies of these records also be emailed to me following the inspection.

We then began our walk through of the facility. I inspected the curing oven, which was operating at the time of my inspection. There were not any visible emissions. The current batch did not contain Teflon materials and oven temperature was 203°F. When fluorine containing materials are cured in the oven, the oven temperature is not to exceed 615°F (PTI. No. 174-19, S.C. III.1). The oven has an automatic shut off so that the oven will shut down if temperatures exceed 615°F.

Next, we observed the painting area of the facility. Great Lakes Rubber has both roll-on painting stations, as well as two spray booths used to apply the rubber coating to metal parts. All coating is applied manually. The roll-on coating generally vents to the in-plant environment, with moveable ventilation hoods that can be used over areas while working. The spray booths operate in an enclosed hood and the emissions are externally vented without control. In 2021, total adhesive coating used in the roll-on and spray application was 182 gallons. The roll-on and spray coating processes are considered exempt according to Rule 287(2)(c).

Adjacent to the paint booth area is a cold cleaner containing methyl ethyl ketone. The cold cleaner is equipped with a mechanically assisted lid and has a DEQ cold cleaner sticker posted on it. The dimensions of the cold cleaner are 17 inches by 26 inches, which corresponds to air/vapor interface of approximately 3.1 square feet. The cold cleaner appears to be exempt according to Rule 281(2)(h) and appears to be operating in compliance with the cold cleaner requirements in Rule 707.

I observed an additional smaller cold cleaner located in the painting area. The solvent used in this parts washer is Aqua Vantage 815. This parts washer was also equipped with a lid and has a DEQ sticker on it. The cold cleaner appears to also be exempt according to Rule 281(2)(h).

Great Lakes Rubber also operates 27 injection molding presses, 6 transfer molding presses, and a rolling press. These molding presses all vent to the general in-plant environment and are considered exempt according to Rule 291, as emissions from the rubber molding process are expected to be minimal. In addition, the facility operates two sand blasters, which are located behind the curing oven. The sand blasters also vent to the in-plant environment and are considered exempt according to Rule 285(2)(l)(vi).

Following molding, some parts then go to a cryogenic deflasher, which uses liquid nitrogen to smooth the surface of the rubber. Pressurized nitrogen is stored in a silo on the exterior of the building. The storage of the nitrogen gas is considered exempt according to Rule 284(2)(j). The cryogenic deflasher process is exempt according to Rule 285(2)(l)(vi).

Following the inspection of Great Lakes Rubber, we conducted a walk through of Mac Valves, as they are located at the same stationary source. The inspection of Mac Valves is documented in a separate activity report for Mac Valves (SRN: N3254).

*Records Review: PTI No. 174-19*

Following the inspection, on March 7<sup>th</sup>, I received copies of all requested recordkeeping for the curing oven. As requested, I was provided records for the previous year, from January 2021 through February 2022. Copies of the records are available on the S Drive at S:\Air Quality Division\STAFF\Leffert, Kaitlyn\Inspection Records. Great Lakes Rubber maintains a Paint Oven Teflon Record, which records the date and times when the oven is used to cure Teflon materials.

Since the materials used at the facility have not changed since the inspection last year, I did not collect copies of the Safety Data Sheets or chemical composition records during this inspection. When fluorine-containing materials are processed in the curing oven, the oven temperature is to be maintained below 615°F (PTI No. 174-19, SC III.1). This is to prevent decomposition of the Teflon materials, which happens at 670°F. The permit requires that the oven temperature be recorded at the beginning and end of each batch processed in the curing oven. The temperature of the oven is recorded every 15 minutes while it is operating. The oven often operated in the range of 600°F – 603°F. The maximum temperature observed over the previous year of records was 604°F, which was recorded on multiple days over the previous year.

#### *Records Review: PTI No. 146-14A*

Facility-wide usage of VOC or HAP containing adhesives or coatings at Great Lakes Rubber is limited to 2,400 gallons per 12-month rolling time period (FG-FACILITY, S.C. II.2). Following the inspection, the facility provided monthly and annual chemical usage records. The provided records indicate that the 12-month rolling total usage of VOC/HAP containing chemicals at the end of February 2022 was 791 gallons, which was also the highest 12-month rolling total over the course of 2021 and 2022 so far. Based on the chemical usage records, Great Lakes Rubber appears to be operating in compliance with the VOC/HAP containing coating usage limit.

In addition to the overall coating usage limit, the permit also specifies that any individual adhesive or coating used at the facility shall not have a VOC content of greater than 7.0 lbs/gallon (FG-FACILITY, S.C. II.1). The chemical usage records provided by the facility indicate that the VOC content of the coatings used range from 4.38 to 6.96 lbs/gallon of VOC.

PTI 146-14A also requires Great Lakes Rubber to maintain records of monthly and 12-month rolling emissions calculations for emissions of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). I was provided VOC emissions calculations for the past year. The permit contains a facility-wide volatile organic compound emissions limit of 18 tons per year (tpy). The provided emission records indicate that rolling 12-month total VOC emissions at the end of February 2022 were 2.63 tpy.

In addition, the permit contains HAP emissions limits of 4 tpy for any individual HAP and 10 tpy for aggregate HAPs. During last year's inspection, Great Lakes Rubber was found to not be maintaining adequate HAP emission records. During this inspection, the facility was able to demonstrate that they are maintaining adequate monthly HAP emissions records. Rolling 12-month HAP emissions for Mac Valves and Great Lakes Rubber combined were 0.47 tpy as of February 2022. The provided HAP emissions calculations indicate that Great Lakes Rubber is operating in compliance with the permitted HAP emission limits.

#### **Conclusion**

Based on my in-person inspection and review of the requested recordkeeping, Great Lakes Rubber appears to be operating in compliance with all conditions of PTIs No. 174-19 and 146-14A, as well as all applicable air quality rules and regulations.

NAME *Kaitlyne Jeffcut*

DATE 07/14/2022

SUPERVISOR *K. Kelly*