

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

B891957350

FACILITY: GREAT LAKES RUBBER CO INC		SRN / ID: B8919
LOCATION: 30573 BECK RD, WIXOM		DISTRICT: Warren
CITY: WIXOM		COUNTY: OAKLAND
CONTACT: Tom Leonardo , General Manager		ACTIVITY DATE: 03/16/2021
STAFF: Kaitlyn Leffert	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY2021 Scheduled Inspection. Violation Notice issued for failing to provide timely notification of the curing oven installation, as required by PTI No. 174-19, S.C. VII.1, and for the failure to provide complete records of HAP emission calculations, as required by PTI No. 146-14A, FGFACILITY, S.C. VI.3.		
RESOLVED COMPLAINTS:		

On March 16, 2021, 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. Mac Valves is one of Great Lakes Rubber's main customers, but Great Lakes Rubber does not exclusively sell to Mac Valves. Since they are considered one stationary source, HAP emissions must be combined to determine whether the source is a major source.

Great Lakes Rubber is permitted to operate a burn-off oven used to remove rubber and adhesives from metal materials (PTI No. 146-14A) and a curing oven, which is used to cure adhesive coatings (PTI No. 174-19). Both the burn-off oven and the curing oven process materials containing fluorine and the permits each contain requirements specific to oven use when fluorine is processed. PTI No. 146-14A also contains facility-wide volatile organic compounds (VOC) and hazardous air pollutants (HAP) emission limits. The AQD Warren Office was notified that the newly permitted curing oven was now operational on September 8th, 2020.

On November 30, 2020, I contacted Mr. Don De Mallie at Great Lakes Rubber to request copies of the records required by both of their permits. Typically, recordkeeping would be done at site at the time of the in-person walk through of the facility. However, due to ongoing concerns related to COVID-19, records were collected in advance of in-person field work to minimize time spent on site. Mr. De Mallie referred me to Tom Leonardo, General Manager, Great Lakes Rubber, who served as my primary contact throughout records review and the inspection process. On December 14th, Mr. Leonardo provided some of the requested records. During my initial review of the records, I identified that HAP and VOC emissions calculations were missing. I contacted Mr. Leonardo to request the emission records and to set up the in-person portion of the inspection in January. Following this email, I received a call from the source identifying that they could provide these records on the day of the inspection.

On January 13, 2020, I spoke with Tom Leonardo, Great Lakes Rubber, and Dave Meinke, Mac Values, regarding my planned upcoming inspection. During this call, I was informed that there had been recent positive COVID cases at the facility and that the building was technically still in "lockdown" from outside visitors. Dave Meinke mentioned that they are working on

developing protocols for outsiders and that it may be easier to postpone the inspection for a couple of months. Out of precaution of safety, I agreed to postponing the inspection.

On March 1st, I followed up with the facility and an inspection was scheduled for March 16th. It was also decided to coordinate my inspection with AQD inspector Joe Forth's inspection of Mac Valves, since the companies are located in the same building.

Facility Inspection

On March 16th at approximately 9:00 am, I arrived at Great Lakes Rubber, where I met with Joe Forth, AQD, Tom Leonardo, Great Lakes Rubber, and Dave Meinke, Mac Valves. Upon our arrival on site, we first went to an office area to go over some of the requested records, including emissions calculations. Mr. Leonardo and Mr. Meinke provided an overview of their VOC emissions calculations spreadsheet, which included monthly and annual chemical usages with VOC emissions calculations. I requested a copy of that spreadsheet be emailed to me so that I could more closely review it following the inspection.

Both Great Lakes Rubber and Mac Valves are required to maintain facility-wide monthly and 12-month rolling HAP emission calculations. When these records were requested, the facility was unable to produce compiled emissions calculations, although they did have calculations for some of the individual HAPs. Mr. Forth and I requested that they compile the HAP emissions information and email it to us so that we can review. On March 30, 2021, Mr. Meinke provided facility-wide HAP emission calculations.

During this initial discussion, I asked about the status of the burn-off oven, since there were previous emails exchanged in 2019 indicating that there were plans to move the burn-off oven to their Dundee location. While I had received emails indicating their plans to do that, I had never received confirmation from the facility that the oven had moved out of the Wixom facility. Mr. Leonardo informed me that the burn-off oven had in fact moved to the Dundee location in 2019 and had not operated in Wixom since then. Following the inspection, I checked our permit records and confirmed that a permit for a burn-off oven was issued to the Great Lakes Rubber facility in Dundee on July 3, 2019. Since this equipment is not located at the Wixom facility and is in a different AQD district, I did not assess compliance with the burn-off oven portion of PTI No. 146-14A.

We also discussed the curing oven and I was informed that the curing oven began operating at the facility in February 2020. The permit requires that EGLE be notified within 30 days of installing or starting up the oven. The records I have indicate that this notice was not provided until September 2020 and therefore this appears to be a violation of PTI No. 174-19, S.C. VII.1.

Following the discussion in the office area, Mr. Leonardo and Mr. Meinke led Joe and me on a walk-through of both facilities. We started in the Great Lakes Rubber side of the building. We first went to the area where the paint booth and curing oven are located. The curing oven was not operating at the time of my inspection. Not all coated parts are cured in the oven and the oven is primarily used for curing the Teflon-containing coatings that are used at the facility.

The paint booth was not currently in use but appeared to be set up for use. The paint booth was equipped with filters, which appeared to be properly installed. Mr. Leonardo informed me that the filters in the booth were changed every shift. Copies of coating usage were provided to determine the exempt status of the oven, which was further evaluated during records review below.

Adjacent to the paint booth area was a cold cleaner. Methyl ethyl ketone, or MEK, is the solvent used in the cold cleaner. The cold cleaner was equipped with a mechanically assisted lid and had a DEQ cold cleaner sticker posted on it. The MEK was stored in a closed container below the cold cleaner. 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.

We went up on to the roof to get a closer look at the stacks. Mr. Meinke identified the stack that is associated with the curing oven. The curing oven was not operating at the time of the stack observation and there were not any visible emissions observed while on the roof. The stack was equipped with a rain cap on it. I pointed out that they are not allowed to have a rain cap installed on the stack, as the permit requires that exhaust be vented vertically unobstructed. Facility staff mentioned that they thought their permit allowed for the rain cap to be installed. Once I was back at my home office, I called the permit engineer who worked on their permit, David Thompson, to discuss the rain cap and their permit. He mentioned that it would be possible for them to have a rain cap, but that they would have to modify their permit to have one. On March 30th, I had a follow-up conversation with Dave Meinke regarding the rain cap and informed him that they would either have to remove it or modify their permit. On March 31st, Mr. Meinke emailed a picture of the stack with the rain cap removed.

As I was leaving the facility, I noted there was also a liquid nitrogen storage tank outside of the facility.

Records Review: PTI No. 174-19

Prior to the inspection, the facility provided records of the chemical composition of the materials processed in the coating oven, records of whether fluorine-containing coatings are being processed in the curing oven, and temperature records at the beginning and end of each batch processed in the curing oven, as is required by PTI No. 174-19. I was provided copies of the Safety Data Sheets (SDSs) for each material processed in the curing oven, as required by SC VI.2. Copies of all provided records are attached to the physical copy of this report.

The curing oven Teflon records indicate that fluorine containing materials are processed in every batch in the curing oven, based on the records provided from fall 2020. 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. According to information provided on the curing oven during permitting, the maximum temperature that the oven can reach is 650°F.

The permit requires that the oven temperature be recorded at the beginning and end of each batch processed in the curing oven. Following my initial record request in December, the facility provided temperature records from a few days of operation in October 2020. The provided temperature records indicated that the temperature of the oven is recorded every 2 seconds. For the days that the temperature records were provided, the maximum temperatures typically ranged around 600°F – 604°F. The facility maintains a log of the start and end time of each batch, which is used to cross reference against the temperature records and determine the temperature at the beginning and end of each batch. I suggested to facility staff that the facility update the log on the oven to include a place for staff to record temperature at the beginning and end of each batch processed.

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 2021 was 529 gallons. Based on the provided records, the highest usage over the previous few years occurred at the end of February 2020, at 863 gallons. 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, the provided records indicate that the paint booth is exempt per Rule 287(2)(c). The provided coating usage records indicate that monthly coating usage ranged from 9.5 to 44 gallons/month over the previous two years. These monthly coating usage amounts are below the 200 gallons/month allowed by the permit exemption.

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 2015 – present. 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 emissions at the end of February 2021 were 1.82 tpy. This is lower than previous years, where 12-month rolling total emissions typically ranged around 3 to 5 tpy. Based on the provided emissions calculations, the facility appears to be in compliance with the facility-wide VOC emission limits.

In addition, the permit contains HAP emissions limits of 4 tpy for any individual HAP and 10 tpy for aggregate HAPs. The facility reported only two HAPS that are emitted at the facility: methanol and toluene. Combined rolling 12-month total HAP emissions at the end of February 2021 were 0.01 tons. Upon closer review of the records, it appears that some of the chemicals used at the facility contain HAPs but were not included in HAP emission calculations. Therefore, the provided records are not complete or accurate representation of the HAP emissions from the facility. A violation notice will be issued to Great Lakes Rubber for failing to provide HAP emission records, as required by PTI No. 146-14A, FGFACILITY, S.C. VI.3.

2020 MAERS Report

Annual emissions reporting done via the Michigan Air Emissions Reporting System is done together under the Mac Valves SRN (N3254) due to the fact that Great Lakes Rubber and Mac Valves are considered one stationary source. I reviewed the 2020 MAERS submittal and noted that the curing oven and coating usage from Great Lakes Rubber were accounted for in the Mac Valves submittal. An initial review of the data submitted indicates that all emissions from Great Lakes Rubber are being accounted for in the MAERS submittal. A full review of the MAERS submittal to determine accuracy of the reported emissions will be made during the MAERS audit.

Conclusion

Based on my on-site observations and review of the requested records, Great Lakes Rubber (B8919) will be issued a violation notice for providing inadequate notification of the curing

oven installation, as required by PTI No. 174-19, S.C. VII.1, and for the failure to provide complete records of HAP emission calculations, as required by PTI No. 146-14A, FGFACILITY, S.C. VI.3.

NAME *Kaitlyn Jeffut*

DATE 04/16/2021

SUPERVISOR *K. Kelly*