

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

N742861514

FACILITY: GRAND RAPIDS FOAM TECHNOLOGIES		SRN / ID: N7428
LOCATION: 2788 REMICO SW, WYOMING		DISTRICT: Grand Rapids
CITY: WYOMING		COUNTY: KENT
CONTACT: Michelle Wing , Process Engineer		ACTIVITY DATE: 12/01/2021
STAFF: Michael Cox	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Unannounced Inspection		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Michael Cox (MTC) arrived at the Grand Rapids Foam Technologies (GRFT) facility located in Wyoming, MI at 1:00 pm on December 1, 2021, to complete a scheduled unannounced inspection. Prior to entering the facility, offsite odor evaluations and visible emission observations were completed. No odors or emissions were noted from the facility.

Facility Description

Grand Rapids Foam Technologies (GRFT) is a polyurethane foam part manufacturing company. The foam parts are used in medical beds and office furniture. The facility is now a minor source for volatile organic compounds (VOCs). The facility is in operation with Permit to Install (PTI) No. 11-05B issued on March 27, 2020, to reflect the removal of EU-Line 4 and associated oven in 2012 and eliminate opt-out permit conditions that were no longer needed. Due to the removal of EU-Line4 and the associated oven GRFT became a minor source of VOC emissions.

Compliance Evaluation

Upon entering the site, AQD staff MTC met with Ms. Michelle Wing, Process Engineer, who provided a tour of the site, answered site specific questions, and provided records.

Opt-Out PTI No. 11-05B

FG-MOLDLINES

This flexible group is for three lines used to produce polyurethane foam parts (EU-LINE1, EU-LINE2, and EU-LINE3). The three mold lines associated with FG-MOLDLINES were observed during the site inspection. Each line is used to create polyurethane foam parts. The general process for each line is a mold design is heated by an electric oven, a natural gas fired oven, or a thermolator. Once the mold design is heated, a mold release is applied to the inside of the mold design before the raw materials are added. The mold design is sealed shut and the foam materials are cured. Following curing the mold is taken out of the mold design before going through the remaining steps prior to being shipped offsite.

EU-LINE1 – It was noted that dry filters were in place. Dry filters are changed on a PM schedule but also on an as needed basis. The mold release is manually sprayed on this line. The line was not in operation during the site visit. High volume low pressure (HVLP) applicators were noted to be installed and used for mold release application manually with test caps available for testing.

EU-LINE2 – It was noted that dry filters were in place. Dry filters are changed on a PM schedule but also on an as needed basis. High volume low pressure (HVLP) applicators were noted to be installed and used for mold release application via robotic application with test caps available for testing.

EU-LINE3 – It was noted that dry filters were in place. Dry filters are changed on a PM schedule but also on an as needed basis. High volume low pressure (HVLP) applicators were noted to be installed and used for mold release application via robotic application with test caps available for testing.

FG-MOLDLINES is subject to emission limits for each specific foam line as follows:

EU-LINE1 is subject to a 16 ton per year (tpy) limit for VOCs per a 12-month rolling time period. VOC emission records were requested for the time period of October 2020 through October 2021. The highest 12-consecutive month VOC emission occurred during the 12-month period ending in March 2021 when 1.70 tons of VOC was emitted by EU-LINE1.

EU-LINE2 is subject to a 16 tpy limit for VOCs per a 12-month rolling time period. VOC emission records were requested for the time period of October 2020 through October 2021. The highest 12-consecutive month VOC emission occurred during the 12-month period ending in October 2020 when 6.60 tons of VOC was emitted by EU-LINE2

EU-LINE3 is subject to a 20 tpy limit for VOCs per a 12-month rolling time period. VOC emission records were requested for the time period of October 2020 through October 2021. The highest 12-consecutive month VOC emission occurred during the 12-month period ending in October 2021 when 1.50 tons of VOC was emitted by EU-LINE3.

Per Special Condition (SC) V.1., GRFT shall determine the VOC content for any mold release, paste wax, or adhesive used, as applied, and as received, using Test Method 24. Alternatively, upon written approval by the AQD District Supervisor, the permittee may use manufacturers formulation data from the supplier to determine the VOC content. GRFT requested to utilize manufacturers formulation data and was approved in a letter dated September 28, 2017. VOC content for the materials utilized on the three

mold lines associated with FGMOLDLINES was verified on site with vendor SDS's and was noted to be consistent with the submitted emissions records.

There are five stacks listed in FG-MOLDLINES that are associated with the three mold lines and associated ovens. The stacks were observed discharging unobstructed vertically during the site inspection. The stacks appeared to be consistent with the dimensions listed in PTI No. 11-05B.

Additional Observations

The SAIP line was observed during the site inspection. Spraying completed at this line is conducted manually. Dry filters are used and were in place. This line had previously utilized Rule 290 to be exempt from Rule 201 permitting. Emission records were provided at the end of the inspection and reviewed. For the month of October 2021 approximately 0.15 tons of VOCs were emitted which is within the applicable limit. Previous monthly emissions also appeared to be within the applicable limit. Based on the records reviewed, the Rule 290 exemption appears to be applicable for the SAIP line.

Three bulk storage tanks of approximately 8,000 gallons in size containing various products used for the mold lines were observed.

Conclusion

Based on the review of the records provided and the facility walk through, Grand Rapids Foam Technologies appears to be in compliance with PTI No. 11-05B and applicable air pollution control rules at this time.

NAME Michael T. Cox

DATE 1/13/2022

SUPERVISOR HH