

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

N775456271

FACILITY: Harbor Foam		SRN / ID: N7754
LOCATION: 2950 Prairie SW, GRANDVILLE		DISTRICT: Grand Rapids
CITY: GRANDVILLE		COUNTY: KENT
CONTACT: Laura Kuperus , Owner		ACTIVITY DATE: 11/05/2020
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

An inspection was conducted by Air Quality Division (AQD) staff Adam Shaffer (AS) at Harbor Foam, Inc. (HF) on November 5, 2020 to verify compliance with Renewable Operating Permit (ROP) No. MI-ROP-N7754-2018 and applicable air pollution control rules.

Facility Description

HF is an expanded polystyrene (EPS) foam manufacturing facility. The facility is a major source of volatile organic compounds (VOCs) and is subject to the Title V program. The facility is in operation with ROP No. MI-ROP-N7754-2018.

Offsite Compliance Evaluation

Due to the timing of the inspection, the 2019 Michigan Air Emissions Reporting System (MAERS) Report was reviewed. For 2019, 77.27 tons of VOCs were emitted. Records reviewed were similar to what was observed in the records provided from the inspection and the 2019 MAERS Report was concluded to be acceptable.

HF is required to submit semi-annual and annual compliance reports per Part A General Conditions 19-23 of MI-ROP-N7754-2018. Semi-annual and annual compliance reports were reviewed since the previous inspection in October 2018. Besides the late submittal of a semi-annual report on September 21, 2018, no additional deviations have been reported since then.

Compliance Evaluation

Prior to entering the facility offsite odor and visible emission observations were completed. Weather conditions at the time of the inspection were partly cloudy skies, temperatures in the low 60's°F, and winds from the southwest at 5-10 mph. Emissions observed appeared to be steam and a plastic odor was noted in several areas around the facility, however, no odor complaints have been received recently regarding the facility.

AQD AS had contacted HF staff Mr. Mike Hickox, Manufacturing Manager, to verify that an inspection was possible that day despite the current coronavirus pandemic. No issues were identified.

Upon entering the site, AQD staff AS met with Mr. Hickox who provided a tour of the facility and answered site specific questions. Proper PPE and social distancing were maintained whenever possible. Following the site inspection, a records request was submitted to Ms. Laura Kuperus, Owner, and requested records were provided by Mr. Andy Boddy, Consultant for HF.

MI-ROP-N7754-2018

EUPLASTICRESIN

This emission unit is for the Hirsch 9000 resin pre-expander, canvas holding bags, Hirsch adjustable wall mold, hot room, wire cutting operations, embossing area, and other polystyrene foam producing operations.

During the course of the inspection the various stages of this emission unit were observed. EPS beads impregnated with pentane are received on site via large bulk bags. At the start of the process the beads go through a pre-expander where they are expanded with steam. Once expanded the beads are placed into holding bags and aged appropriately. When this is completed the beads are then sent to the molding machine where they are pressed and turned into blocks with varying densities based on the function of the product. The blocks are placed into storage until they are shaped to the desired size through various processes such as wire cutting before being shipped off site to the consumer. Scrap material is transported to grinding systems observed during the inspection where the material is grinded and compressed before being shipped offsite. Mr. Hickox mentioned several minor items. One was installing a new pad for onsite delivery of EPS beads. Secondly, in December 2020 they intend to do a like for like replacement of the eight EPS holding bags due to old age. It was discussed with the consultant to ensure that the bag replacement would not trigger a need for a modification to the permit. If this does not trigger a modification, an applicable permit exemption will need to be identified by HF prior to replacement of the EPS holding bags.

This emission unit is subject to a VOC emission limit of 139.8 tons per year (tpy) per a 12-month rolling time period. Records were requested and reviewed back to October 2019. For the month of September 2020, approximately 10.753 tons of VOCs were emitted and as of September 2020, 93.861 tpy of VOCs were emitted per a 12-month rolling time period, which is well within the permitted limit. Previous 12-month rolling time periods reviewed were also within the permitted limit. HF is also subject to a material limit of 6.3 lbs of VOCs per 100 lbs of EPS beads received per a 12-month rolling time period. As of September 2020, the average bead VOC content was 4.39 lbs of VOCs per 100 lbs of EPS beads which is within the permitted limit. Previous records reviewed also show that HF is within this permitted limit.

Per Special Condition (SC) V.1, yearly testing shall be completed to determine the VOC content, as received and as shipped, of select EUPLASTICRESIN products. Testing results from 2018-2019 were requested and provided. At this time, testing has not been completed for 2020. After further review, the test results appear acceptable.

Per SC.VI.2-7, HF shall keep records of pounds of VOCs per 100 lbs of EPS beads for each shipment received, 12-month rolling total VOC contents of lbs of VOCs per 100 lbs of EPS beads used, pounds of scrap material processed, EPS bead throughput at the pre-expander portion, VOC content of product shipped and monthly / 12-month rolling total VOC emissions. Records were requested and reviewed back through October 2019. Based on the records reviewed, it appears that HF is keeping applicable records.

Two stacks are listed in association with EUPLASTICRESIN. During the previous inspection on October 19, 2018, rain caps had been observed on both stacks. Per MI-ROP-N7754-2018, the exhaust gases from the two stacks are to be discharged unobstructed vertically. Verification from HF staff was later provided on November 19, 2018, to show that the rain caps had been removed. The two stacks were discussed with HF staff at length with no changes appearing to have occurred following the removal of the rain caps.

Additional Observations

- One 6.69 MMBtu/hr natural gas-fired boiler used to provide steam for the pre-expander was observed during the inspection that HF had historically believed to be exempt per Rule 282(2)(b)(i). This appears to be acceptable. Based on the size of the boiler, it is not subject to New Source Performance Standards and since HF is not a major source of hazardous air pollutants (HAPs), it is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), Part 63 Subpart DDDDD. Additionally, since the boiler is natural gas-fired, it is not subject to the NESHAP 40 CFR Part 63, Subpart JJJJJJ.

Conclusion

Based on the facility walkthrough, observations made, and records received, HF appears to be in compliance with the MI-ROP-N7754-2018 and applicable air quality rules.

NAME Adam ShafferDATE 12/04/2020SUPERVISOR HH