

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

N554157733

FACILITY: TECH LINE PRODUCTS		SRN / ID: N5541
LOCATION: 950 W BROADWAY, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: David Ritchie , Safety Director		ACTIVITY DATE: 02/19/2021
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site compliance evaluation.		
RESOLVED COMPLAINTS:		

Introduction

On Friday, February 19, 2021, Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff member Scott Evans (SE) conducted an on-site air quality inspection of the Tech-Line Products facility located at 950 W. Broadway, Muskegon, Michigan, to determine compliance with air quality regulations outlined in Permit to Install (PTI) No. 253-95A and all other applicable air quality regulations. This was an announced inspection to ensure proper safety protocols could be met during the ongoing COVID-19 pandemic.

Tech-Line Products is a facility that manufactures bowling balls using styrene, polyester resins, and dyes. The balls are molded and produced entirely on site from raw materials. The facility has one active permit (PTI No. 253-95A) which was first approved in 1995 as PTI No. 253-95 and then modified in 1996 as PTI No. 253-95A. The facility was last inspected in 2017 and has no historic violations on record.

Evaluation

Upon arrival at the facility, SE saw no signs of visible emissions coming from the facility and detected no odors in the area surrounding the facility. After an initial perimeter observation, SE entered the facility. Due to the ongoing COVID-19 pandemic, PPE including face masks were worn to minimize potential risk during the inspection. SE was greeted by facility representative David Ritchie (DR) upon entering. A brief discussion was held to discuss the intention and nature of the inspection before a walking, visual inspection of the facility commenced. Upon the request of SE, records were provided for the period of January 2020 to March 2021 for review remotely at a later time to minimize contact during the ongoing pandemic.

The facility has four mixing stations for mixing dyes and materials, two electrical drying ovens, multiple drilling and deburring stations, and multiple lathing and grinding stations for smoothing of the final bowling balls. All equipment either vents to the interior facility atmosphere or through one of three baghouses.

PTI No. 253-95A

This is the only active permit associated with this facility. This is a Synthetic Minor opt-out permit that only restricts styrene emissions from the bowling ball manufacturing process and is not considered to provide a source-wide limitation that would normally be expected for an opt-out permit. The issue has been discussed with the facility; however, the facility has not elected to pursue a permit modification to address their opt-out limit at this time. The permit outlines six special conditions that are applicable to polyester resin slurry mixing and molding processes and all associated process equipment and exhaust systems (processes).

The processes are limited to styrene emissions of no more than 8.3 lbs per hour and no more than 9 tons per year (tpy) based on a 12-month rolling time period. Records show that the highest 12-month rolling emission rate during that period occurred in December 2020 and March 2021, both of which had 12-month styrene emissions of 2 tpy. This is within compliance of the established limit.

The facility is limited to styrene usage of no more than 900,000 lbs. per year based on a 12-month rolling time period. Records show that the highest usage of styrene occurred in March of 2021 at 199,870 lbs. used during the 12-month period. This is within compliance of the established limit.

The processes are limited to no more than 2600 hours of operation over the course of a single year. Shift schedules were discussed with DR. Over the period of January 1, 2020 to December 31, 2020, the facility was in operation for approximately 2300 hours. This is well below the limit of 2600 hours per year.

The processes are required to have no visible emissions resulting from the manufacturing processes. SE witnessed no visible emissions during the inspection. Though very small amounts of resin shavings could be seen around the collection basins of the baghouses, these shavings were discussed as being the result of minor spillage that can sometimes occur when changing the collection basins, not the result of airborne emissions coming from faulty collection equipment. A shovel was at each station to be used for scooping up as much of these shavings as possible.

The facility may be required by the AQD to test for styrene emissions. After discussions with DR, it is felt that the emission factor outlined in the permit (0.02 lbs. styrene emitted per lb. used) is accurate as no major changes in processes or process equipment have occurred since the previous inspection. As such, the AQD is not requesting any testing at this time.

The facility is required to provide the following records upon request of the AQD:

- List of styrene-containing materials in use.
- Amounts (in lbs.) of each styrene-containing material used.
- Amount (in lbs.) of styrene used.
- Amount (in lbs.) of styrene emitted.
- 12-month rolling annual calculations of styrene emitted.
- 12-month rolling annual records of styrene-containing material used.
- Total operational hours per year.

As mentioned above, all records were provided upon request. The following information was determined based on the provided records:

- Three styrene-containing materials were used:
 - 842 Cover Poly
 - 827 Core Poly
 - Styrene Mon10-15.
- Amounts of each material used monthly were provided, with the highest material usage recorded being 78,959 lbs of material used (54,088 lbs. 842 Cover Poly, 24,039 lbs. 827 Core Poly, 832 lbs. Styrene Mon10-15) in January 2020.

- Amount of styrene used was recorded monthly with the highest usage recorded being 30,192 lbs. used in January 2020.
- Styrene emissions were recorded monthly with the highest emission rate being 604 lbs. emitted in January 2020.
- As discussed above, 12-month rolling annual records of styrene-containing material used and styrene emitted were provided and could demonstrate compliance with established limits.
- As discussed above, records for operational hours were available for review.

The records provided were in acceptable format and kept for the two-year period as discussed in the permit. The facility is compliant with record-keeping requirements at this time.

All stacks at the facility are required to be at a minimum height of 20.7 feet above ground level. Due to the weather, which was heavy snow at the time of the inspection, it was not determined to be safe to go on the facility roof to measure any stacks. As such, the stacks were not directly measured. Visual inspection of the stacks from the ground showed that they appeared to be unaltered from original permitting approval and compliant with the requirement.

Other Items

Historically, the facility has had one boiler located at the facility for snow melting functions on site. However, during the inspection it was discussed that the boiler had broken down and was determined to be too costly to repair given its age. As such, the boiler has been disconnected and is no longer functional. DR expressed that the facility intends to replace it in the future, but currently no detailed plans are in place. SE advised DR that the AQD should be contacted once plans have materialized to ensure any and all boiler regulations are met.

The facility operates three baghouses to control particulate matter produced during the manufacturing process. All three baghouses were functional at the time and had the following magnahelic readings during the inspection:

- 7.9 inH₂O
- 2.7 inH₂O
- 1.6 inH₂O

All appeared to be operating properly in accordance with manufacturer specifications. These baghouses are exempt from air permitting requirements under Rule 285(2)(f).

The facility utilizes multiple ovens as part of the drying and setting processes for manufacture of the bowling balls. These ovens are electric and are exempt from air permitting under Rule 282(2)(a).

The facility has multiple pieces of equipment that serve to shape and smooth the bowling balls such as drilling, deburring, and blast polishing stations. All equipment vents either to the interior atmosphere of the facility or directly to one of the baghouses at the facility. The equipment venting to the internal atmosphere is exempt from air permitting under Rule 282(2)(l)(vi)(B) and the equipment that vents to the baghouses is exempt from air permitting under Rule 282(2)(l)(vi)(C).

Conclusion

At the conclusion of this inspection, the facility appears to be compliant with the conditions of PTI No. 253-95A and all other applicable air quality regulations.

NAME Scott Evans

DATE 4/20/2021

SUPERVISOR HH