

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

B298163233

FACILITY: Original Footwear		SRN / ID: B2981
LOCATION: 1005 Baldwin, BIG RAPIDS		DISTRICT: Grand Rapids
CITY: BIG RAPIDS		COUNTY: MECOSTA
CONTACT: Tim Barber , Manager		ACTIVITY DATE: 06/02/2022
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Air quality inspection to assess compliance with permit and other applicable air regulations.		
RESOLVED COMPLAINTS:		

Introduction

On June 2, 2022 State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) staff member Scott Evans (SE) conducted an on-site, unannounced inspection of the Original Footwear facility located at 1005 Baldwin St. in Big Rapids, Michigan, to assess compliance with air quality rules and regulations. Original Footwear is a manufacturing facility that produces work and military shoes. Processes include cutting of material sheets, injection molding of soles, and spray coating of polishes and lacquers. The facility does not use PFAS-containing materials for tanning or waterproofing, as per discussions with facility representatives. The facility currently has Permit to Install (PTI) No. 160-08 that has opt-out limits for Volatile Organic Compounds and Hazardous Air Pollutants to remain below major source thresholds.

Upon arrival at the facility, SE observed no odors or visible emissions (VEs) during an initial inspection of the facility perimeter. After entering the facility, SE was greeted by Tim Barber (TB). After a brief discussion was held to discuss the purpose of the day's inspection, a walkthrough of the facility was conducted. During this inspection all cutting, sewing, shaping, and cleaning areas were observed. Records were discussed initially on-site to verify proper retention and a copy of the records was sent by facility staff to SE on June 3, 2022, so that a detailed review could be conducted remotely.

PTI No. 160-08

This permit to install was first applied for on July 8, 2008, and approved on September 2, 2008. It includes two emission units (EUs) (EUDCPARTICULATE and EUWCPARTICULATE) and one flexible group (FG) (FGFACILITY).

EUDCPARTICULATE

This EU consists of a single cyclone dust collector and all associated process equipment. It has three emission limits included in the PTI:

Pollutant	Limit	Time Period
Particulate Matter (PM)	0.1 lbs. per 1000 lbs of exhaust gasses	At all times.
PM	2.48 lbs	Per hour averaged over a 24-hour period
PM	7.1 tons	Per 12-month rolling period as determined at the end of each calendar month.

Compliance with these limits is not directly measured by the facility, but is shown through the proper operation of the cyclone dust collector and implementation of a Preventative Maintenance Plan.

This EU has one process limit included in the PTI. The emission unit must be operated in compliance with the procedures outlined in the preventative maintenance plan (PMP). These procedures include the following requirements:

- Weekly checking of cyclone for excessive VEs.
- Monthly checking of cyclone for leaks and clogs.
- Quarterly checking of the cyclone for wear on bags, tension rings, retainer plates, air valves, and filters.
- Conducting all needed repairs.

During discussions of the cyclone, TB confirmed that the above maintenance procedures are being followed appropriately. All parameters are checked weekly and weekly logs are kept of these checks. A sample of the log is included with this report.

This EU has one equipment limit included in the PTI. The emission unit cannot operate unless the cyclone dust collector is installed, maintained, and operated appropriately. During the inspection it could be observed that the cyclone was operating properly, as evidenced by the collection of dust actively occurring in the collection bin at the cyclone exit chute as well as an absence of excess dust around the roof and ground areas of cyclone equipment.

Records kept for this EU as included in the PTI are as follows:

- Records of completed procedures as outlined in the PMP.
- Records of completed maintenance procedures including date problem noticed, date repairs were made, and who completed the repairs.

During the on-site inspection it was confirmed that these records are being kept appropriately, as is discussed above.

The cyclone stack is required to measure 48 inches in diameter or less and at least 33 feet above ground level. This stack was not directly measured for safety reasons but appeared to be compliant with the requirements of the PTI.

EUWCPARTICULATE

This emission unit once consisted of a wet dust collector that serviced multiple pieces of equipment. However, as was identified during the last inspection in 2018, this dust collector has been dismantled and is no longer at the facility. The equipment previously serviced by the dust collector is now serviced by multiple internally-vented dust collectors that appear to be exempt from air permitting requirements per Rule 285(2)(l)(vi)(B). The facility has been informed that they can apply for a permit modification if they wish to remove this section from the currently active PTI.

FGFACILITY

This FG consists of all process equipment located at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment.. There are three emission limits associated with this FG:

Pollutant	Limit	Time Period
Individual Hazardous Air Pollutants (HAPs)	<10.0 tons per year (tpy)	Annually based on a 13-period rolling time frame, as determined at the end of each 4-week period.
Aggregate HAPs	<25 tpy	Annually based on a 13-period rolling time frame, as determined at the end of each 4-week period.
Volatile Organic Compounds (VOCs)	<100.0 tpy	Annually based on a 13-period rolling time frame, as determined at the end of each 4-week period.

Compliance with these limits is discussed below along with discussion of record keeping requirements.

This FG has one material limit included in the PTI. The facility shall not produce more than 2,900,000 pairs of boots per 13-period rolling time frame as determined at the end of each 4-week period. Compliance with this limit is discussed below along with discussion of record keeping requirements.

This FG has two process limits included in the PTI. The facility must dispose of used spray booth filters appropriately to minimize release of air contaminants. When filters are in need of replacement, the old ones are removed from the stations and bagged for disposal through waste management contractors. This appears to satisfy the limit. The facility is also required to follow the procedures of the PMP for the coating booths. These procedures include the following requirements:

- Weekly checking of coating lines for problems, filter cleanliness and placement, and spray gun flow.
- Conducting all needed repairs.

During discussions of the facility, TB confirmed that the above maintenance procedures are being followed appropriately by staff on a regular basis as they use the stations daily.

This FG has the following two equipment limits included in the PTI.

- Spray booths can only operate if associated filters are installed and maintained properly.
- All spray booths must be equipped with HPLV spray guns.

During the inspection the filters could be seen to be installed properly. Discussions with facility personnel confirmed that filters are changed at appropriate intervals. Spray guns could be seen to be appropriate HPLV technology.

This FG has the following two testing requirements included in the PTI:

- Manufacturer's formulation data must be used to calculate HAP content of used material.
- Manufacturer's formulation data can be used to calculate VOC content of used materials if approved by the AQD. This approval was given on October 15, 2012.

It was confirmed that manufacturer's formulation data is used for calculation of emissions. Upon AQD request, the facility is required to test and confirm the accuracy of the manufacturer's formulation data. At this time, testing for HAP or VOC content is not necessary.

The following are required to be kept for this FG:

- All records must be calculated in an appropriate format at the end of each 4-week period.
- Regarding HAP emissions:
 - Gallons of HAP-containing material used.
 - Amount of HAP-containing material reclaimed (if any).
 - HAP content of each HAP-containing material.
 - Individual and aggregate HAP emissions for each 4-week period.
 - Individual and aggregate HAP emissions for each 13-period rolling time frame.
- Regarding VOC emissions:
 - Gallons of VOC-containing material used.
 - Amount of VOC-containing material reclaimed (if any).
 - VOC content of each VOC-containing material.
 - VOC emissions for each 4-week period.
 - VOC emissions for each 13-period rolling time frame.
- Regarding boot production:
 - Pairs of boots produced for each 4-week period.
 - Pairs of boots produced for each 13-period rolling time frame.
- Records of all procedures followed within the PMP.
- Records of completed maintenance procedures including date problem noticed, date repairs were made, and who completed the repairs.

After the conclusion of the on-site inspection, records were sent to the AQD for a detailed, remote review. Records were provided for January 2021 through May 2022. Upon detailed review of the above records, the following compliance analyses could be made:

- All records were in appropriate format and for proper time periods.
- Regarding HAP emissions:
 - All necessary information was included.
 - Highest individual HAP 4-week emissions were 0.20 tons of Toluene in multiple periods.
 - Highest aggregate HAP 4-week emissions were 0.24 tons of HAPs in period 6 of 2021.
 - Highest individual HAP 13-period rolling time frame emissions were 2.00 tons of Toluene from Period 2 of 2021 through Period 1 of 2022.
 - Highest aggregate HAP 13-period rolling time frame emissions were 2.10 tons of HAPs from Period 2 of 2021 through Period 1 of 2022.
- Regarding VOC emissions:
 - All necessary information was included.
 - Highest VOC 4-week emissions were 1.59 tons of VOCs in Period 12 of 2021.
 - Highest VOC 13-period rolling time frame emissions were 13.4 tons of VOCs from Period 2 of 2021 through Period 1 of 2022.
- Regarding boot production:
 - Highest 4-week shoe production was 40,011 pairs produced in period 1 of 2022.

- Highest 13-period rolling time frame boot production was 406,842 pairs produced from Period 2 of 2021 through Period 1 of 2022.
- Records of PMP procedures and maintenance logs were reviewed on site.

As described above, all emission limits and production limits were met. Copies of provided records are included with this report.

Other Items

The facility has one cold cleaner on site. This unit was properly lidded during the inspection. It is exempt from air permitting requirements by Rule 281(2)(h).

The facility has one natural gas fired boiler. Though the name plate on the boiler was not visible, past inspections have indicated that the boiler is less than 50mmBtu in capacity and so is exempt from air permitting requirements by Rule 282(2)(b)(i). This boiler was installed in 1952 and is exempt from New Source Performance Standard 40 CFR Part 60 Subpart Dc as it was installed prior to June 9, 1989. This boiler is exempt from National Emissions Standards for Hazardous Air Pollutants 40 CFR Part 63 Subpart JJJJ as it is a gas fired unit.

The facility has one station that utilizes injection molding of plastics for small scale production of experimental shoe sole samples. This station appears to be exempt from air permitting requirements under Rule 286(2)(b).

Conclusions

At the conclusion of the inspection the facility appears to be compliant with the requirements of PTI No. 160-08 as well as all other applicable air quality rules and regulations.

NAME Scott Pana DATE 6/16/2022 SUPERVISOR HY