

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

N170168869

FACILITY: Morbark, LLC		SRN / ID: N1701
LOCATION: 8507 S WINN RD, WINN		DISTRICT: Bay City
CITY: WINN		COUNTY: ISABELLA
CONTACT: Madison Roehrs , Safety		ACTIVITY DATE: 07/11/2023
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Facility Inspection		
RESOLVED COMPLAINTS:		

Ben Witkopp of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) - Air Quality Division (AQD) visited Morbark on July 11, 2023. Morbark is located in Isabella County at 8507 South Winn Rd which is west of Shepard and south of Mt Pleasant, Michigan. The company has been in business since 1957. For most of its history the company was family owned. In 2016 the company was sold to Stellex. In October 2019 Morbark was purchased from Stellex by the Alamo Group. Morbark manufactures a line of heavy equipment for use in the forestry, sawmill, biomass, rental, and tree care markets. Morbark produces flails, tree chippers, brush chippers, horizontal and tub grinders etc. Chippers comprise the bulk of the production. Operations consist largely of welding, cutting, fabrication, assembly, and painting. Morgan Thane was the Environment, Health, and Safety Manager for the company. However, she was no longer with the company. The company did not have a single point of contact. Instead, three people from the company safety group were managing environmental affairs. The group was comprised of Madison Roehrs, Jake Davis, and Kelvin Willoughby.

The facility has two air permits for the existing operations. Permit 511-89E covers the painting operations and was most recently revised on May 19, 2020. August 12, 2018, was the latest revision of Permit 138-15 which covers two natural gas fired boilers. The company is also subject to the provisions of an Administrative Consent Order (ACO) identified as 2020-15. The ACO basically requires the company to comply with its permits and contains provisions for stipulated penalties in case the company is not in compliance. The company consultant, Fisbeck, formerly Fishbeck, Thompson, Carr, and Huber, developed the record keeping system used by the company. Fishbeck also performs evaluations of any new coatings should the need occur.

The two boilers are not operated at the same time given that the units are identical. The units are run alternately. The permit has a requirement of maximum heat input capacity of 14.7 MMBTU per hour for each boiler, gas usage records, and references the National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers Area Sources as specified in 40 CFR 63 Subpart JJJJJ, 40 CFR 63. AQD does not have delegation for the area source MACT. Gas usage records indicated the highest usage occurred in January 2023 and was 8,575 mcf.

Morbark keeps track of building use of natural gas as well as that used by the boilers. The most recent 12 month rolling time period of boiler gas usage was 48.482 MCF. Each boiler is rated at a maximum of 14.7 MMBTU per hour.

Permit 511-89E covers the three coating operations. FGCOATING has requirements for each coating operation. The second portion of the permit (FGFACILITY) concerns the entire facility. FGFACILITY contains opt-out limits for hazardous air pollutants (HAPs) on an individual and aggregate basis as well as a specific limit for ethyl benzene.

FGCOATING

The painting area is located in the southern portion of the facility. Parts to be painted are racked, washed, allowed to air dry, and then painted. The painted parts are air dried as no cure ovens are present. Kevin Rinker is the paint line supervisor.

The wash operations exhaust internally using a non-acidic cleaner. Therefore, Rule 285 (2)(1)(iii) is applicable as "equipment for surface preparation of metals by use of aqueous solution, except for acid solutions" would be exempt from air permitting. The material contains bases.

Parts to be painted are trailered or toled into booths. Two sets of air filters on one end are used for incoming air and two sets are used for discharge air. Each set of filter area is then comprised of two filters. The initial discharge filters are changed on an as needed basis to keep the second layer cleaner. All booths use Binks Global Electronic Mix (GEM) Solution to meter paint and catalyst. The materials are used as received so no manual mixing occurs. The permit has requirements for high volume, low pressure (HVLP) spray equipment or comparable. HVLP spray guns are used.

Booth one has a 35.0 tons per year (tpy) limit on volatile organic compounds (VOC). The VOC limit for booths two and three is 30.0 tpy each. The tpy limits for all booths are based on a 12 month rolling time period.

The highest recent amount of emissions from booth one was 0.7 tons of VOC per month. Booth's two and three had 1.2 and 1.0 tons of VOC per month respectively. On a 12-month rolling time period, booth one's highest amount of VOC emissions was 6.8 tons while booths two and three had 10.1 and 9.7 tons respectively.

FGCOATING has an additional emission limit which concerns the combination of VOCs and a specific chemical, PCBT (Chemical Abstract Service # 98-56-6). The limit is based on a 12-month rolling time period and is 65.0 tpy. Records showed emissions had a high point of 2.9 tons per month and 26.4 tons per year based on a 12-month rolling time period.

The final limit in FGCOATINGS is a VOC content of 3.5 pounds per gallon (minus water and solvents exempt from the definition of VOC) as applied. This does not mean that each coating must meet the requirement on an individual basis. The limit is compared to a daily volume-weighted basis for VOC content. Records review did not find an instance of the limit being exceeded.

FGFACILITY

FGFACILITY has limits on HAPs, both individually and aggregate. It also has a limit on a specific HAP, ethylbenzene. Individual HAPs are to be less than 8.9 tpy while aggregate HAPs are to be less than 22.4 tpy. Ethylbenzenes limit is 7.9 tpy. All of the aforementioned limits are based on a 12-month rolling time period.

The most emitted HAP was xylene, with its highest rate of emissions being 2.72 tpy. Ethylbenzene highest emissions rate was 1.22 tpy. The highest aggregate HAP emission levels were 4.3 tpy, The HAP amounts from FGFACILITY did include the minute amount contributed via natural gas combustion. HAP emissions were below permit limits based on records review.

RULE 290

Facility wash water is collected and sent to an evaporator system located on the southeast side of the facility. It is natural gas fired and exhausts externally. Fishbeck prepared documentation and calculations to show the operation is exempt from permitting via rule 290 and meet the requirements found under rule 278 and 278(a).

COLD CLEANERS

The cold cleaners used by Morbark are not the typical trough with lid type equipment. Morbark uses units that are somewhat sink-like in that solvent is pumped up for use in a vertical egg shaped basin and then allowed to drain down into a container. Therefore, no lid exists, yet there

was no solvent odor whatsoever. The cleaners would be deemed as new for the purposes of AQD part seven rules. Operating instructions were posted. The units are maintained by Safety Kleen. Rule 281 (h) provides an exemption from air permitting for cold cleaners that have an air/vapor interface of not more than 10 square feet.

CUTTING, WELDING, METRAL WORKING

Morbark has implemented the use of both laser and plasma cutting operations. The fumes are exhausted externally at the north end of the production building. The cutting is directed downward, and as such, any potential small metal shards drop to the floor. The directional cutting acts as a precleaner for subsequent emissions collection and handling. Retractable fume collection devices connect to the side of the cutting decks. Therefore, only fumes get routed to one of the two collectors. Plasma cutting has its own collector while another is dedicated to lasers. All other metal working operations are exhausted internally. The air permit exemptions found under rule 285 (2) (i) and (vi) are applicable.

PLANS

Past discussions concerned a new, large spray booth and paint kitchen as well as powder coating operations. Those plans had been scrapped. All operations that were present during the last inspection remained in place and no new coating operations had been installed.

CONCLUSION

The facility is considered to be in compliance with its existing air permit and the various pertinent AQD rules.

NAME

B. Zutty

DATE

9/5/23

SUPERVISOR

C. Hans