

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

N298973785

FACILITY: BOHNING CO LTD		SRN / ID: N2989
LOCATION: 7361 N 7 MILE RD, LAKE CITY		DISTRICT: Cadillac
CITY: LAKE CITY		COUNTY: MISSAUKEE
CONTACT: Niki Vander Meulen , Chemical Production and Testing Supervisor		ACTIVITY DATE: 09/05/2024
STAFF: Lindsey Wells	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY24 inspection of PTIs 949-91 main plant (and 675-92 for N3533 north facility).		
RESOLVED COMPLAINTS:		

Introduction

On 9/5/2024 AQD District staff Lindsey Wells mobilized to Bohning Co Ltd (SRNs: N2989 and N:3533) located at 7361 and 7650 N 7 mile road, respectively (Missaukee County, postal zipcode 49651) to conduct unscheduled, unannounced compliance inspections.

The purpose of the on-site inspections was to determine compliance with the Michigan Air Pollution Control rules and permits to install (PTI) 949-91 (N2989) and 675-92 (N3533).

Summary

Based on observations during the 9/5/24 inspections Bohning facilities operate in compliance with both permits to install (PTI) 949-91 (N2989) and 675-92 (N3533). Staff met with Nicole VanderMeulen, the Chemical Production and Testing Supervisor for the on-site inspection.

Facility Information

The facility manufactures parts and accessories for the archery industry, as well as paints and adhesives used in fishing and archery accessories.

PTI 949-91 applies to the paint and adhesive manufacturing process which is located in the main plant. They produce an assortment of paints and adhesives that are used for custom arrows. The largest volume product is an adhesive which is mixed in relatively large batches and packaged in 3/4 ounce tubes. The facility maintains on-site stock of a variety of resins in powdered form and various thinners/solvents in 55 gallon drums.

Adhesives are mixed in one room in a large enclosed mixer and paints are mixed in separate rooms. Most of the paints are packaged in 5 gallon pails or smaller containers. There is also a separate room for filling containers and one for repackaging adhesives into smaller containers. There is also a lab room where products are tested and an adjacent small spray booth used for R&D (less than 200 gallons per month). The booth is equipped with filters and is vented out the side of the building (Rule 287(c) compliant). Each of the rooms has a fan and vent in the side of the room exhausting directly outdoors. There are no stacks or ductwork for the adhesive and paint manufacturing and mixing rooms.

On-Site Inspection Notes

Upon arrival to site, no visible emissions or odors were observed. Staff were referred to Niki upon arrival. Staff explained the purpose of the visit was a compliance inspection and after reviewing the permits and formats of the records, proceeded on a process walkthrough of both facilities. All available records were readily provided to staff upon request.

Compliance Evaluation PTI 949-91 N2989

Permit conditions in PTI 949-91 are associated with the production of adhesives, paints, and thinners that takes place in the main plant.

Emissions from the paint and adhesive production process are limited to 0.6 tons per year, and no visible emissions. Verification of emission rates by testing is required at the request of the department. To date no request is of record.

Additionally, previous reports indicate that there is no practical way to determine compliance with the emission limit. The potential for VOC emissions is minimal and occurs only when vessels or containers are open to add materials. Unlike a coating operation where material is atomized and applied, most of the VOC content remains in the product until it is used by the consumer. The production limit and process operations are the most practical way to evaluate compliance.

The permit limits the production of paints and adhesives to 15,000 gallons per year. Compliance is demonstrated via monthly recordkeeping with a 2 year recordkeeping retention requirement. Review of records indicates compliance with the condition for the evaluation period. 2023 production records indicate approximately 683 gallons produced. 2024 year

to date records indicate 397 gallons produced. Bohning reports no changes in materials since the last inspection of record in 2014.

Compliance Evaluation PTI 675-92 N3533

Permit conditions in PTI 675-92 are associated the mold grinding process that takes place in the North plant.

The machine and tool shop makes molds and tools from hardened steel for the injection molding and plastic extrusion processes.

The permit limits emissions of particulate matter (PM) to 2 lb/hr and 8.8 tpy as well as a 20% opacity limit. Verification of emission rates by testing is required at the request of the department. To date no request is of record.

The permit also requires proper operation of the cyclone and management of collected contaminants such that their reintroduction to outdoor air is minimized.

The CNC, grinding and cutting machines for mold grinding are connected to a cyclone collector located outside the building. The process was not running at the time of the inspection, but close inspection of the cyclone did not reveal any accumulations of material or other air contaminants on the control equipment or nearby surfaces. During a previous inspection there were no visible emissions from the process. Compliance with the permit requirements is demonstrated by proper operation of the cyclone. The facility reports that in general, only a half gallon of material is collected per year.

The injection molding process makes plastic parts such as arrow quiver components and caps for product vials. The facility claims exemption from 201 permitting for the plastic injection molding via Rule 286(b), and for the plastic extrusion processes via Rule 286(a). The arrow vanes that are cut from the plastic extrusions are coated along one edge with "vane primer" that improves adhesion to the arrow.

Based on observations during the 9/5/24 on-site inspection and subsequent records review, each Bohning facility appears to operate in compliance with its respective permit.

NAME Lindsey Wells

DATE 12-2-24

SUPERVISOR Shane Nixon