

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

N657770953

FACILITY: ND Industries, Inc.		SRN / ID: N6577
LOCATION: 1000 N. Crooks Road, CLAWSON		DISTRICT: Warren
CITY: CLAWSON		COUNTY: OAKLAND
CONTACT: Ajay Jain , EHS Manager		ACTIVITY DATE: 02/29/2024
STAFF: Owen Pierce	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 24 Compliance Inspection		
RESOLVED COMPLAINTS:		

On February 29, 2024, I (Owen Pierce EGLE - Air Quality Division) performed a scheduled targeted inspection of ND Industries located at 1000 North Crooks Road, Clawson, Michigan. The purpose of the inspection was to determine the facility's compliance with the Federal Clean Air Act; and Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451 and the conditions of Permit to Install (PTI) No. 72-99C. Upon arrival, I met with Ajay Jain, EHS Manager, Stephanie Jarrett, Senior Environmental Engineer at Fishbeck, and Erik Piper, General Manager, and conducted a pre-inspection meeting where I introduced myself, presented my credentials, and stated the purpose of the inspection.

During the pre-inspection meeting, Ajay explained the facility's processes and equipment. ND Industries makes chemical adhesives for locking and sealing applications for automobile nuts, bolts, and fasteners to improve strength and adhesion. ND Industries services Tier II automotive suppliers whom service Tier I automotive suppliers. The facility is currently permitted to operate eight surface flow coating lines, and has a facility-wide opt-out permit for hazardous air pollutants (HAPs).

The facility has approximately 35 on-site employees and operates 2 shifts; the first shift is from 7:00am to 3:30pm, and the second shift is from 4:00pm to 12:00am, Monday through Friday with an occasional day of work on Saturday depending on their workload. According to Ajay, there have been no recent process or equipment changes, and there are no cold cleaners or emergency generators at the facility. Non-permitted equipment at the facility includes liquid epoxy coating lines, Nylon Powder Patch coating lines, sealant lines, a parts washer, and a powder coating line. Following the pre-inspection meeting, Erik, Ajay, and Stephanie, lead me on a tour of the facility.

Facility Walk-through Observations

Although the facility is permitted to operate eight surface flow coating lines, there were several additional coating processes observed at the facility. The following non-permitted coating lines were observed during the inspection:

1. Nylon (ND Patch) powder coating lines. Nylon powder is sprayed on hot metal surfaces (threaded fasteners).
2. Epoxy lock coating lines. This is a two-component coating with no VOC. The coatings are cured using Ultraviolet (UV) light.
3. Solvent and water-based microsphere coating lines. The threaded parts are cured at approximately 70 degrees Celsius.
4. Water-based sealant coating lines (under-head sealant and white sealant lines). The parts are then cured after being coated.
5. Powder coating lines.
6. Linear flow coating lines.

According to Erik, Acetone is used as a clean-up solvent. All non-permitted coating lines appear to operate under the R336.1287(2)(c) PTI exemption with the exception of the ND Patch and the powder coating lines which appear to operate under the R336.1287(2)(d) exemption. Coating usage records for all non-permitted coating lines operating under the 287(2)(c) exemption were provided by the facility and the records show that the coating usage was less than 200 gallons per month for each 287(2)(c) exempt coating line from January 2021 through December 2023.

A heated parts washer was observed during the walk-through. According to Erik, the parts washer is used on occasion when a customer requests it and pre-treats the parts with a rust inhibitor, although parts that are shipped to ND industries are usually ready to be coated. The parts washer appears to operate under the R336.1281(2)(k) PTI exemption.

PTI No. 72-99C Compliance Evaluation

The facility was issued PTI No. 72-99C for eight surface flow coating lines. Recordkeeping requirements were provided during the inspection. ND Industries is required to maintain records of monthly gallons of material used, VOC content, monthly and 12-month rolling VOC mass emissions of materials used, HAP content, and monthly and 12-month rolling HAP emissions of materials used (Individual and Aggregate HAPs). The facility provided all of the required records in an excel spreadsheet from January 2021 through December 2023.

FGCOATING

Special Condition (SC) 1.1a sets the VOC emission limit at 10 tons per year (tpy) for each individual coating line based on a 12-month rolling time period as determined at the end of each calendar month. SC 1.1b sets the VOC emission limit at 2,000 pounds per month for each individual emission unit. In order to demonstrate compliance with these emission limits, SC 1.9 states that the permittee shall keep the following records on a monthly basis for each individual emission unit in FGCOATING:

1. Gallons (with Water) of each material used and reclaimed .
2. VOC content (minus water and with water) of each material as applied.
3. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
4. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

After a review of the provided records, the highest monthly VOC emissions calculated from January 2021 - December 2023 were 797.92 pounds in November 2023, for EUMICRO4. The highest 12-month rolling emissions calculated from January 2021 - December 2023 were 3.77 tpy as recorded at the end of December 2023 for EUMICRO4. I spot checked the calculations to make sure that they are being calculated correctly. ND Industries uses a mass balance in order to calculate their emissions. Based on the results of the record review, ND Industries is in compliance with the emission limits in SC 1.1a and SC 1.1b.

During the facility walk-through, each coating applied was observed as being either properly recovered, recycled, reclaimed, or disposed of as required by SC 1.2. All waste materials were observed as being stored in closed containers, as required by SC 1.3. Coatings and solvents were observed as being stored in closed containers in a storage unit in a manner that minimizes the generation of fugitive emissions, as required by SC 1.4. Each coating line in FGCOATING was observed as being equipped with flow control technology as required in SC 1.5.

SC 1.6 requires that the VOC content, water content, and density of any material as applied and as received shall be determined using federal Reference Test Method 24. Ajay provided me with a document showing the results from the latest Method 24 VOC analysis test which was completed in December of 2023.

SC 1.8 states that the permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The facility maintains Safety Data Sheets (SDS) for each material used in the coating process, and the safety data sheets were reviewed on site during the inspection.

FGFACILITY

SC 2.1a sets the facility-wide VOC emission limit at 30 tpy based on a 12-month rolling time period as determined at the end of each calendar month. SC 2.1b - 2.1c sets the Individual and Aggregate HAPs

limit for the facility. The Individual HAP limit is 9.0 tpy based on a 12-month rolling time period, and the Aggregate HAPs limit is 22.5 tpy based on a 12-month rolling time period.

After a review of the provided records, the highest facility-wide VOC emissions calculated from January 2021 - December 2023 was 17.81 tpy as recorded in December 2023. The highest Individual 12-month rolling HAP emissions came from toluene at 8.77 tpy as recorded in December 2023. The highest Aggregate 12-month rolling HAPs emissions was 17.50 tpy as recorded in December 2023. ND Industries uses a mass balance in order to calculate their VOC and HAP emissions, and the facility includes VOC and HAP emissions from all exempt processes, that use VOC/HAP containing materials, in their facility-wide emissions calculations. Based on the results of the facility-wide record review, ND Industries is in compliance with the emission limits required in SC 2.1a-SC 2.1c.

SC 2.4 requires that the permittee shall certify by the 15 of each month the material content information of the coatings used at the facility. In addition, the plant manager of ND Industries at 1000 N Crooks Road shall provide concurring certification of material usage that the coatings are used without the content alteration by dilution with HAP solvents except as authorized by AQD District Supervisor in writing. Ajay provided me copies of the certifications performed each month from January 2021 - December 2023, and I reviewed them on site during the inspection.

Conclusion

Based on the observations made during the inspection, and an analysis of the requested records, ND Industries is in compliance with the conditions and requirements of PTI No. 72-99C.

NAME Owen Pierce

DATE 5/6/2024

SUPERVISOR K. Kelly