

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

P020439120

FACILITY: PREFIX CORPORATION		SRN / ID: P0204
LOCATION: 1601 W HAMLIN RD, ROCHESTER HLS		DISTRICT: Southeast Michigan
CITY: ROCHESTER HLS		COUNTY: OAKLAND
CONTACT: Ken Siuda , Corporate Facilities Manager		ACTIVITY DATE: 02/15/2017
STAFF: Samuel Liveson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection of an opt-out source.		
RESOLVED COMPLAINTS:		

On February 15, 2017, I conducted an unannounced, scheduled, level 2 inspection of Prefix Corporation (Prefix), located at 1300 and 1601 West Hamlin Road in Rochester Hills, Michigan. The purpose of this inspection was to determine the facility's compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); the Air Pollution Control Rules; and the conditions of Permits to Install (PTI) No. 73-15 and No. 68-15.

I arrived on site around 1:00 PM at the 1300 West Hamlin Road location. I met with Mr. Ken Siuda, Corporate Facilities Manager, and with Mr. Vern Bachman, Maintenance Technician. Mr. Siuda provided records and both staff provided a walkthrough of the facility. I provided Mr. Siuda with my contact information and explained the purpose of our unannounced inspections.

Opening Meeting

Prefix produces prototype vehicle designs; performs custom modifications of vehicles; and paints vehicles for low-volume specialty production. Projects may involve the automotive, aviation, motion picture, exhibit, and other industries. The facility has approximately 75 employees, and operates 1 shift Monday through Friday, and some Saturdays and Sundays.

The facility has three spray booths and a preparation area. Booths 1 and 2 are located at the 1601 West Hamlin Road location. Booth 3 and a preparation area are located at the 1300 West Hamlin Road location.

PTI No. 68-15 is a general PTI for surface coating lines. PTI No. 73-15 limits the hazardous air pollutant (HAP) emissions of all equipment at the facility. This permit allows the facility to opt-out of Title V requirements.

1300 West Hamlin Road Walkthrough

EUBOOTH3

From the facility 2016 MAERS report, EUBOOTH3 at 1300 West Hamlin Road is a down draft booth with a length of 27 feet. I was unable to enter because the booth was being used for carbon fiber curing. According to Mr. Siuda, the booth is downdraft, doubles as natural gas-fired curing oven, and has dry particulate control. Mesh filters are changed as needed per PTI No. 68-15 Special Condition (S.C.) IV.2.

A container of waste solvent at 1300 West Hamlin was closed per PTI No. 68-15 S.C. III.1. Mr. Siuda explained that the facility is considered a small quantity generator for hazardous waste purposes.

Preparation Deck

A prep deck is located near the paint booth for sanding and priming before components enter the paint booth. It has a downdraft dry filter control to a blanket mesh filter that is changed

approximately once per month according to Mr. Siuda. Filters appeared to be snug and tight. Mr. Siuda showed me where extra filters are stored on site.

Sand Blast Cleaning

A sand blast cleaner exhausts to the general in-plant environment and appears to be exempt from obtaining a PTI per R 285(2)(l)(vi)(B).

Plastic Forming

Prefix combines activator and resin to form plastic in the shape of various molds for automotive prototypes. These plastic forming processes appear to be exempt from obtaining a Permit to Install per R 286(2)(a) and (b). CNC machines are used to cut plastic, steel, and aluminum in this area. The CNC machines appear to be exempt from obtaining a Permit to Install per R 285(2)(l)(vi)(B). Adhesive application in this area appears to occur at rates less than 2 gallons a day per Mr. Siuda, so that it is exempt from obtaining a Permit to Install per R 287(2)(a).

1601 West Hamlin Road Walkthrough

Paint booths 1 and 2 are located at the 1601 West Hamlin Road building address. They are a truck paint booth and car paint booth respectively.

EUBOOTH1

We visited EUBOOTH1, which is a 64-foot long down-draft paint booth used for painting longer vehicles such as trucks. Two HVLP applicators are used to manually apply coating per S.C. IV.1. The paint kitchen is located between EUBOOTH1 and EUBOOTH2. Mesh filters were in place along the length of the floor. Filters appeared to be snug and tight per PTI No. 68-15 FG-COATING S.C. IV.2.

EUBOOTH2

We visited EUBOOTH2, which is a 27-foot long down-draft paint booth for coating cars. Two HVLP applicators are used to manually apply coating per PTI No. 68-15 FG-COATING S.C. IV.1. Mesh filters were in place along the length of the floor. Filters appeared to be snug and tight per S.C. IV.2.

Paint Kitchen

Paints are stored neatly in containers about a quart in size along shelves in the mix room. A scale is used to estimate the quantities of coatings used for recordkeeping.

A spray gun cleaner in the mixing room had an open lid. Mr. Siuda closed the lid and we discussed keeping it closed generally. Operating instructions were posted conspicuously. Mr. Siuda provided the MSDS for the Acrylic Lacquer Thinner used in the spray gun cleaner. It contains 45-65% toluene.

Liquid waste is stored in a closed drum with a funnel in the lid. Both the gun cleaner and hazardous waste disposal are managed by Crystal Clean per PTI No. 68-15 FG-COATING S.C. III.1. Dry, non-hazardous waste, like filters, is collected by Republic Services.

According to Mr. Siuda and from my facility walk-through, there are no process boilers or emergency generators on site.

Recordkeeping

VOC Emissions

Mr. Siuda provided VOC emissions for January through December of 2016 per PTI No. 68-15 FG-COATING S.C. VI.3 and FG-SOURCE S.C. VI.1.

According to facility records, the highest 12-month rolling VOC emissions were 1.01 tons in December of 2016. Including clean-up solvents, this totals 3.05 tons for 2016, below the source-wide VOC emission limit in general PTI No. 68-15 of 30 tons per year (tpy) of VOC per S.C. FG-SOURCE I.1. The facility also complies with the 10 tpy VOC emission limit for each coating line per S.C. FG-COATING I.2, and the monthly limit of 2000 lb VOC/month per S.C. FG-COATING I.1. Records for individual coating lines show the following maximum monthly emissions for 2016:

Coating Line	Month	VOC emissions (lbs)	< 2000 lbs?
EUBOOTH1	May	87.7	Yes
EUBOOTH2	December	196.3	Yes
EUBOOTH3	December	82.0	Yes
EUBOOTH4	November	106.2	Yes

From PTI file no. 73-15, and from talking with Ken Siuda on May 15, 2017, booth 4 in records appears to reference the facility prep deck at 1300 Hamlin Road. The above monthly emissions do not appear to include wash solvents used in the spray gun cleaner. On May 8, Mr. John Stempowski, Prefix Purchasing Manager, provided the wash solvent monthly purchase records for the facility, which totaled 2.04 tons VOC emissions as a conservative estimate if all solvents purchased were emitted to ambient air. The most wash solvents purchased in a month were 30 gallons of methanol in June of 2016, which equates to about 198 pounds assuming methanol's density of 6.6 pounds per gallon at 20 °C. On April 11, Mr. Siuda also provided purchase records of clean-up solvents for 2016 per PTI No. 68-15 FG-COATING S.C. VI.3(a), which total 2.04 tons assuming all purchased solvents were emitted.

HAP Emissions - Coatings

Mr. Siuda provided HAP emissions for January through December of 2016 per S.C. VI.2. The maximum aggregate HAP emissions over a 12-month rolling time period were 0.36 tons in December of 2016, which is below the facility limit of 22.5 tpy per PTI No. 73-15 S.C. I.2. The maximum individual HAP emissions over a 12-month rolling time period were 0.22 tons of xylenes in December of 2016. This is below the facility limit of 9.0 tpy per S.C. I.1.

HAP Emissions – Purge and Cleanup Solvents

On April 11, Mr. Siuda provided purge and clean-up solvent purchase records for May through December of 2016 per PTI No. 68-15 S.C. VI.3.a. These solvents account for 1.15 tons of methanol emissions and 0.38 tons of toluene emissions in addition to the HAP emissions discussed above.

MSDS

Mr. Siuda provided a word document with over 100 MSDS sheets, of which I reviewed D8115 Matte Clearcoat. He also provided the following MSDS sheets per PTI No. 73-15 S.C. V.1 and PTI No. 68-15 FG-COATING S.C. VI.4:

- DP90LF – Non Sanding Epoxy Primer Black (Lead Free)
- T004 – Acrylic Lacquer Thinner, used in the spray gun cleaner.

DP90LF and D8115 VOC and HAP concentrations appear to be accurately reflected in the facility recordkeeping. T004 usage is not included in paint use records because it is not used on the line; however purchase records provide a conservative estimate of usage.

Stack Heights

Mr. Siuda and I observed the paint booth stacks for EUBOOTH3 from the parking area.

Similarly, Mr. Siuda pointed out the stacks for paint booths at the 1601 West Hamlin Road location from the parking area. Stacks appear to be approximately 1.5 times the building height per S.C. VIII.1. On Wednesday, March 1, Mr. Siuda provided the following building heights and stack heights. Stacks appear to be greater than 1.5 times the building height per PTI No. 68-15 FG-COATING S.C. VIII.1.

Building	Roof Height	Stack Height	Stack + Building Height	>1.5 x Height?
1300 W. Hamlin Rd	20 feet	12 feet	32 feet	Yes
1601 W. Hamlin Rd	21 feet	18 feet	39 feet	Yes

Compliance

Based on the AQD inspection and records review, it appears that Prefix is in compliance with NERPA; the Air Pollution Control Rules; and the conditions of PTIs No. 73-15 and No. 68-15.

NAME *Am L.*

DATE 5/15/17

SUPERVISOR SK