

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

P032854863

FACILITY: PREFIX CORPORATION		SRN / ID: P0328
LOCATION: 3500 JOSLYN ROAD, AUBURN HILLS		DISTRICT: Warren
CITY: AUBURN HILLS		COUNTY: OAKLAND
CONTACT: Ken Siuda , Facilities Manager		ACTIVITY DATE: 06/24/2020
STAFF: Adam Bognar	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On July 24, 2020, Michigan Department of Environment, Great Lakes, and Energy – Air Quality Division (EGLE-AQD) Staff, I, Adam Bognar conducted a targeted inspection of Prefix Corporation (the “facility” or “Prefix”) located at 3500 Joslyn Rd, Auburn Hills, MI 48326. The purpose of the inspection was to determine the facility’s compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules; and Permit to Install Nos. 128-16A and 40-12.

Contact: Kenneth J. Siuda, Environmental Manager

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Due to the ongoing COVID-19 pandemic, an in-office record review was conducted rather than on-site. I requested records electronically from Mr. Ken Siuda on June 18, 2020. Mr. Siuda provided me the requested records via email. I reviewed records for August 2019 through June 2020. These records can be accessed on the AQD shared drive at the following address: S:\Air Quality Division\STAFF\Bognar, Adam\Inspection Documents\Prefix 2020

I arrived at the facility at around 10 am. I met with Mr. Ken Siuda, Facilities Manager. I identified myself, provided credentials, and stated the purpose of the inspection. Previous facility contact, Mr. David Wallace, has been laid off due to COVID-19 related budget concerns.

Inspection

Prefix has been in business at their separate Rochester Hills location (P0204) for almost 40 years. That business includes engineering prototypes and designs for the automotive industry.

Prefix has operated at this location for eight years. There are approximately 60 employees operating Monday through Friday (sometimes Saturday) from 6 am to 5 pm. Prefix shut down completely for several weeks during the COVID-19 crisis; however, they are now back to essentially full capacity. It appears that the demand for ultra-high luxury automobiles has not declined much due to COVID-19.

Prefix contracts to paint, dynamometer (“dyno”) test, and do some assembly on high end vehicles. Formerly Prefix was contracted to paint and perform work on Dodge Viper sports car before production of the Dodge Viper ceased in August 2017. Now, Prefix has taken on various other projects to make up for the lost work. Prefix is currently contracted to paint the Ford GT, a Mercedes Maybach SUV, and various other vehicles. In another area of the building, Prefix designs, builds, and dynamometer tests specialty race car engines for the Trans-Am Series. Other vehicles are dyno tested on a contract basis. In yet another area of the building, Prefix is working on a special project to produce small camper vans using a Nissan sprinter van as the base automobile. The fully assembled Nissan vehicle is delivered to Prefix. Prefix is only involved in installing camping accessories into the vehicle such as a bed, cabinets, stove, ect. I don’t expect any emissions from this project.

Seven downdraft spray booths are in operation. The booths are used to paint cars and other parts using high volume low pressure (HVLV) paint guns. The intake air enters from the back wall of the booth and is exhausted through dry fabric exhaust filters located in the floor of the booth. The exhaust filters in all booths appeared to be in place and functioning properly. Mr. Siuda stated that the filters are changed as needed, but usually once per week. Prefix maintains records of each booth filter change.

There are several paint mix rooms used as staging areas for the spray booths. These areas were clean and organized during my inspection. All paint containers had their lids closed. There are several solvent based paint gun washers (cold cleaners) located in these paint rooms. Each cold cleaner had proper usage instructions posted and the lids were closed. The air vapor interface of these cold cleaners is approximately 2'x2'. Cold cleaners at Prefix appear to be exempt from Rule 201 requirements pursuant to Rule 281 (2)(h). Waste paint is stored in closed 55-gallon drums.

Permit to Install No. 128-16A

FG-DYNOS

This flexible group consists of three dynamometers used to perform quality, durability, and performance testing on automotive engines. Two of the dynos utilize gasoline/natural gas in the tested engine. Both these dynamometers are equipped with an exhaust capture system that vents engine exhaust out the roof.

One of the dynamometers is a "spin-tron" that does not utilize any combustible fuel. Instead, the spin-tron is an electric motor that spins the driveshaft of the motor. The pressure of each cylinder is monitored while the electric motor spins the gasoline engine. No emissions are expected from the spin-tron dynamometer station.

Section I – SC 1: Places an emission limit on carbon monoxide (CO) of 77.2 tons per year. Based on the records I reviewed from January 2018 to August 2019, the emissions at Prefix are significantly lower than this. In June 2020, the 12-month rolling total was reported at 2.09 tons CO from all 3 dynamometers combined (see attached). These emissions are down significantly year over year. June 2019 the 12-month rolling total was 4.8 tons.

Section II – SC 1: States that Prefix shall only burn unleaded gasoline and natural gas in FG-DYNOS. Based on my inspection and record review, only unleaded gasoline is currently used in FG-DYNOS. Prefix stopped using natural gas in the dynos approximately one year ago after finishing a project that required it.

Section II – SC 2: Restricts gasoline usage in FG-DYNOS to 500 gallons per day. Only 9.2 gallons of the 500 may be used for wide open throttle (WOT) testing. Based on the records I reviewed from January 2018 to August 2019, this limit has not been exceeded. In June 2020, a total of 72 gallons of fuel was used. Prefix uses much less than 500 gallons per day of gasoline.

Section II – SC 3: Restricts natural gas usage in FG-DYNOS to 500 gasoline gallon equivalents (GGE's) per day. Mr. Siuda stated that natural gas has not been used at the facility in the past year.

Section II – SC 4: Restricts gasoline usage to 21,200 gallons per 12-month rolling time period. Of the 21,200 gallons, only 767 gallons may be used for WOT testing. Based on the records I reviewed, these usage limits have not been exceeded. In 2019, a total of 1,736 gallons of gasoline was used. For the 12-month period ending in June 2020, total gasoline usage was 1061 gallons. WOT testing makes up a very small portion of this usage. Records of wide-open throttle usage are kept by operators in a binder next to each dynamometer.

Section II – SC 5: Restricts natural gas usage to 20,000 GGE per 12-month rolling time period. Natural gas has not been used at the facility in the past year.

Section IV – SC 1: Requires that Prefix install, calibrate, maintain, and operate a device to monitor the unleaded gasoline usage rate for FG-DYNOS. I observed that a flow meter is present in each of the three dynamometer stations. The meters keep track of the rolling total volume of gasoline that passes through. To keep track of fuel usage, the dyno operator notes the meter reading on a log next to the dyno station before and after engine testing.

Section IV – SC 2: Requires Prefix install, calibrate, maintain, and operate a device to monitor the natural gas usage for FG-DYNOS. A natural gas flow meter is present in the dyno-stations. Natural gas is not currently used at the facility.

Section VI – SC 1,2,3,4: Specifies recordkeeping requirements for FG-DYNOS. Prefix must keep records of gasoline and natural gas usage on a daily and 12-month rolling time period. Prefix must differentiate between periods of normal operation and WOT operation. This data must be used to determine monthly and 12-month rolling CO emissions. These records are maintained.

Section VII – SC 1: Requires Prefix to notify the AQD district supervisor before any installation, construction, reconstruction, relocation or modification of equipment. It appears that no new equipment has been added/modified in FG-DYNOS.

Section VIII – SC 1: Specifies stack parameters. I did not verify stack dimensions during this inspection. Stacks appear to be discharged vertically unobstructed to the ambient air.

FGFACILITY

Section I – SC 1,2,3: Places facility-wide ROP opt-out emission limits on CO, individual HAP, and aggregate HAPs of 89 tpy, 8.9 tpy, and 22.4 tpy, respectively. Based on the records I reviewed, these limits have not been exceeded. CO emissions from ancillary equipment such as HVAC/heaters are assumed to be 12.3 tons, which is the PTE for these devices. Facility-wide CO emissions are reported at 14.39 tons for the 12-month rolling period ending in June 2020. Total facility-wide HAP emissions from the coating booths, dynamometers, and ancillary equipment are reported at 0.80 tons for the 12-month rolling period ending in June 2020.

Section V – SC 1: Requires Prefix to determine the HAP content of any material as received and as applied using manufacturers formulation data. Prefix maintains a chemical formulation database that tracks the HAP content of all materials used at the facility.

Section VI – SC 1,2,3,4: Specifies FGFACILITY recordkeeping requirements. Prefix must keep records of the amount of HAP containing material used, the HAP content of those materials, the fuel usage for all combustion fuels, and facility-wide CO and HAP emission rates on a 12-month rolling basis. Prefix maintains these records.

Permit to Install No. 40-12 – General permit for coating booths

FG-COATING

Section I – SC 1,2: Establishes emission limits for VOC of 2000 lb/month/booth and 10 tons/year/booth. Based on the records I reviewed emission records for each of the seven booths. Based on the records I reviewed, these emission limits have not been exceeded.

Section III – SC 1: Requires Prefix to capture all purge/clean-up solvents and waste coatings, store them in closed containers, and dispose of them according to state/federal regulations. Prefix does not currently take credit for any reclaimed materials in their emission calculations. Waste solvents are stored in sealed drums and hauled away by a hazardous waste disposal company.

Section IV – SC 1: Requires Prefix to equip each coating booth with HVLP spray applicators. All paint applicators at Prefix are HVLP.

Section IV – SC 2: States that Prefix shall not operate any spray application unless the booth dry exhaust filters are installed, maintained, and operated in a satisfactory manner. The filters appeared to be in place, but the booths were in use during my inspection. I was not able to take a close look at the filters. Entering the booths while active spraying/drying is occurring can cause craters/imperfections in the finish. Prefix maintains records of each filter change. According to Mr. Siuda, each booth filter is changed nearly every week.

Section V – SC 1: States that EPA Method 24 testing is required if requested by the AQD. EPA Method 24 tests for the VOC content of a coating/solvent. AQD is not requesting that Prefix perform any Method 24 testing at this time. Prefix maintains manufacturers information for all chemicals and coatings used at the facility. This manufacturers information includes VOC content.

Section VI – SC 1,2,3,4,5,6,7: Establishes recordkeeping requirements for FG-COATING. Prefix must keep records of the gallons of each solvent used and reclaimed, the VOC content of all solvents used, and the corresponding VOC mass emission calculations on a monthly and 12-month rolling time period. Additionally, Prefix is required to maintain purchase orders/invoices for all coatings, reducers, and purge/clean-up solvents. These records are maintained. Records are stored digitally in a shared network drive.

Section VIII – SC 1: Requires that exhaust gases from FG-COATING be discharged vertically upwards from exit points not less than 1.5x the building height. I did not verify stack dimensions during this inspection. Stacks appeared to be discharged vertically upwards to the ambient air.

Section IX – SC 1: States that Prefix shall not replace or modify any portion of FG-COATING without notifying the AQD permit section and AQD district supervisor. There have been no recent modifications to the coating booths.

FG-SOURCE – The conditions of FG-SOURCE limit VOC emissions to 30 tons per year and require facility-wide VOC mass emission calculations to be maintained on site. Based on the records I reviewed, the 30 tons per year VOC emission limit has not been exceeded. Facility-wide VOC mass emission calculations are maintained on a 12-month rolling basis. For the 12-month period ending in June 2020, facility-wide VOC emissions are reported at 3.70 tons. The highest reported yearly VOC emission rate for the period I reviewed was in the 12-month period ending in January 2019 at 8.48 tons.

I left the facility at around 11:00 am.

Compliance Determination

This facility appears to be in compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules; and Permit to Install Nos. 128-16A and 40-12.

NAME Adam Bognar

DATE 9/25/2020

SUPERVISOR Sebastianykallemkal