

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

P032859139

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: 06/30/2021
STAFF: Adam Bogнар	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On June 30, 2021, Michigan Department of Environment, Great Lakes, and Energy – Air Quality Division (EGLE-AQD) Staff, I, Adam Bogнар 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. 128-16B and 40-12.

Contact: Kenneth J. Siuda, Environmental Manager

(248)-797-3885

ken.siuda@prefix.com

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 10, 2021. Mr. Siuda provided me the requested records via email. I reviewed records from June 1, 2020 through May 2021. These records can be accessed on the AQD shared drive at the following address: S:\Air Quality Division\STAFF\Bogнар, Adam\Inspection Documents\Prefix June 2021

I arrived at the facility at around 9 am. I met with Mr. Ken Siuda, Facilities Manager and Mr. Pete Romzick, Consultant (GHD). I identified myself and stated the purpose of the inspection.

Inspection

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 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 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.

Previously, Prefix designed, built, and dynamometer tested specialty race car engines for the Trans-Am racing series. As of October 2020, the dynamometers at Prefix have been removed. Prefix no longer performs dynamometer testing in test cells. Prefix has been increasingly taking on specialty assembly jobs for automotive manufacturers. Prefix is contracted to assemble an aftermarket door for the Jeep Wrangler. In 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.

Twelve downdraft spray booths are in operation. Six spray booths were recently added in late 2020. The booths are used to paint cars and other parts using high volume low pressure (HVLP) 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'. I verified that one of the cold cleaners had a rack for draining parts, but I did not open each cold cleaner. 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. 128-16B
FG-DYNOS (removed from facility)**

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.

These three dynamometers were removed from the facility in October 2020. Prefix decided to get out of the dynamometer testing business and instead focus more on painting and assembly. The inside of the building was remodeled/rearranged in order to add 6 additional spray booths, remove the 3 dynamometers cells, create new paint storage areas, and make various other changes.

I reviewed records from June 2020 (previous AQD inspection) through October 2020 in FG-DYNOS.

Section I – SC 1: Places an emission limit on carbon monoxide (CO) of 49.0 tons per year. Based on the records I reviewed, the emissions at Prefix are lower than this limit. In June 2020, the 12-month rolling total was reported at 2.09 tons CO from all 3 dynamometers combined. This was the highest 12-month rolling total for the period I reviewed. These emissions have been decreasing year over year. June 2019 the 12-month rolling total was 4.8 tons.

Section I – SC 2: Limits lead emissions to 88.6 lb/3-month period. This limit has not been exceeded based on the records I reviewed. No leaded gasoline has been used in the period I reviewed. Total unleaded gasoline usage for the 12-month period ending in October 2020, when the dynamometers were removed, was 1022 gallons. The lead emission factor established in PTI No. 128-16B for unleaded fuel is 0.000111 lb/gallon. Multiplying these numbers together shows that based on the records I reviewed, Prefix has annual lead emissions of 0.113 lbs during that period.

Section II – SC 1: States that Prefix shall only burn unleaded gasoline, leaded gasoline, diesel, and natural gas in FG-DYNOS. Based on my inspection and record review, only unleaded gasoline was used in FG-DYNOS. Prefix stopped using natural gas in the dynos approximately two years 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 this limit has not been exceeded. In June 2020, a total of 72 gallons of fuel was used. The highest monthly usage was during September 2020 at 74.3 gallons. Prefix uses much less than 500 gallons per day of gasoline. No WOT testing was performed during the period I reviewed.

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 two years. The MAERS report for Prefix supports this claim. The MAERS report shows that natural gas was last used in calendar year 2018.

Section II – SC 4: Limits diesel fuel usage in FG-DYNOS to 500 gallons per day. Based on the records I reviewed, diesel fuel has not been used in FG-DYNOS.

Section II – SC 5: Restricts the leaded gasoline used in FG-DYNOS to 7,604 gallons per 3-months based on a 3-month rolling time period. No leaded fuel has been used at Prefix based on the records I reviewed.

Section II – SC 6: Restricts gasoline usage to 15,000 gallons per 12-month rolling time period. Of the 15,000 gallons, only 714 gallons may be used for WOT testing. Based on the records I reviewed, these usage limits have not been exceeded. The highest usage was during the 12-month period ending in June 2020 at 1061 gallons. Rolling usage steadily decreased until the dynos were removed in October 2020. No WOT testing was done during the period I reviewed.

Section II – SC 7: Restricts natural gas usage to 10,000 GGE per 12-month rolling time period. Natural gas has not been used at the facility in the 2 years.

Section II – SC 8: Restricts diesel fuel usage to 15,000 gallons per 12-month rolling period. No diesel fuel has been used based on the records I reviewed.

Section IV – SC 1: Requires that Prefix install, calibrate, maintain, and operate a device to monitor the unleaded gasoline usage rate for FG-DYNOS. In a previous inspection, I observed that a flow meter is present in each of the three dynamometer stations. The meters kept track of the rolling total volume of gasoline that passed through. The dyno operator noted 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. I verified in a previous inspection that a natural gas flow meter was present in the dyno-stations.

Section VI – SC 1,2,3,4,: Specifies recordkeeping requirements for FG-DYNOS. Prefix must keep records of the amount of unleaded gasoline, leaded gasoline, diesel, and natural gas used in FG-DYNOS based on a monthly and 12-month rolling time period. Additionally, Prefix must differentiate between periods of normal operation and wide-open throttle (WOT) operation. These records are maintained. Only unleaded gasoline has been used in FG-DYNOS during the period I reviewed. No wide-open throttle testing was done during the period I reviewed.

Section VI – SC 5: Requires Prefix to maintain records of the maximum lead content of any leaded gasoline used at the facility. No leaded gasoline was used at Prefix during the period I reviewed.

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. The three dynamometers associated with this PTI have been removed.

Section VIII – SC 1: Specifies stack parameters. The stacks associated with these dynamometers have been removed. The ceiling has been sealed where the stacks used to exit.

FGFACILITY

Section I – SC 1,2,3: Places facility-wide ROP opt-out emission limits on individual HAP and aggregate HAPs of 8.9 tpy and 22.4 tpy, respectively. Based on the records I reviewed, these limits have not been exceeded. Total reported facility-wide HAP emissions from the coating booths, dynamometers, and ancillary equipment were highest during the 12-month period ending in May 2021 at 3.6 tons. HAP emissions have increased from 0.76 tons during the 12-month period ending in May 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: 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 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**

This flexible group consists of twelve coating booths. Six of these booths were recently installed in late 2020 (Booth 1, 2, A, B, C, & D). Booth 1 and Booth 2 have separate curing and coating booths. Booths A, B, C, & D have combined coating and curing areas (spovens). Booths 3, 4, 5, 6, 7, & 8 are spovens that have been installed at Prefix for many years.

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.

The highest reported monthly usage for a single booth was 0.68 tons in Booth 5 during February 2021. The highest reported annual usage for a single booth was 2.57 tons in Booth 5 during the 12-month period ending in May 2021. Reported annual combined VOC emissions were highest during the 12-month period ending in May 2021 at 11.57 tons. The highest monthly usage was in April 2021 at 1.74 tons.

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. Prefix recently installed a new “positive displacement mixer” paint delivery system. Paint dosing and mixing at Prefix is now partially automated.

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. I verified that filters were in place in booths 1, 2, 3, 4, 5, 6, 7, and 8. Booth 6, A, B, C, & D were either being prepped for paint or in bake mode. I was not able to enter booths 6, A, B, C, or D. 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. The filter change records show that the filters are generally changed 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/HAP 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 (for each booth). 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, including control equipment or coatings, nor install additional coating lines (or any portion of, including control equipment or coatings) without notifying the AQD permit section and AQD district supervisor a minimum of 10 days prior to making the changes. In late 2020, six new coating booths were installed without notifying the AQD.

Prefix submitted the proper forms to notify the AQD permit section and District Supervisor of the new booths on August 2, 2021. I discussed this issue with AQD Warren District Supervisor Ms. Joyce Zhu. AQD will not issue a violation notice for this non-compliance. Prefix has already corrected the issue. I explained to Mr. Siuda and Mr. Romzick that it is Prefix's responsibility to thoroughly understand the permit conditions. If Prefix fails to report new booth installations, booth modifications, or booth relocations to the AQD in the future, then a violation notice will be issued.

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. The highest reported yearly VOC emission rate for the period I reviewed was in the 12-month period ending in May 2021 at 11.57 tons.

I left the facility at around 10 am.

Compliance Determination

This facility is not operating in compliance with the requirements of SC IX.1 of Permit to Install Nos. 40-12. Prefix failed to notify the AQD 10 days prior to installing six new coating booths. At our discretion, AQD will not issue a violation notice for this non-compliance. Prefix submitted the proper notifications to AQD on August 2, 2021.

Prefix appears to be in compliance with all other AQD rules.

NAME Adam Bogros

DATE 8/4/2021

SUPERVISOR K. Kelly