

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

N062252522

FACILITY: PROGRESSIVE FINISHING, INC.		SRN / ID: N0622
LOCATION: 50800 Russell Schmidt Blvd, CHESTERFIELD		DISTRICT: Warren
CITY: CHESTERFIELD		COUNTY: MACOMB
CONTACT: Paul Hinderliter , President		ACTIVITY DATE: 01/16/2020
STAFF: Adam Bogнар	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On Thursday, January 16, 2020, Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) staff, I, Adam Bogнар, conducted a scheduled inspection of Progressive Finishing (the "Facility") located at 50800 Russell Schmidt Blvd, Chesterfield, MI. The purpose of this inspection was to determine the facility's compliance status with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) rules; and Permit to Install Nos. 131-09C and 132-07.

I arrived at the facility at around 10 am. I met with Mr. Paul Hinderliter, President. I identified myself, provided credentials, and stated the purpose of the inspection. Mr. Hinderliter and I sat down in a conference room and held a pre-inspection meeting. During this meeting we discussed facility operations and reviewed usage/emission records. After the pre-inspection meeting, Mr. Hinderliter accompanied me for a facility inspection.

Progressive Finishing is an automotive and industrial plastic parts coater. Some metal parts may be coated as well. There are approximately 24 employees that operate 3 coating lines (Systems 1, 2, and 3) Monday through Friday during one shift from 7am to 3pm. One of the coating lines, System 2, is operated continuously during three shifts from Monday through Friday. Progressive Finishing operates on weekends depending on customer demand.

Progressive Finishing is contracted to coat several automotive components. Currently, the largest contract is a dashboard component for the Chevrolet Equinox. Approximately 6,700 Chevrolet Equinox dashboard components per week are painted at this facility. The Equinox job requires continuous operation of coating System 2 over three shifts to keep up with demand.

System 1 is a chain-on-edge conveyer coating line consisting of 2 manual coating booths, oven, and flash off tunnels. It is typically used to apply solvent based coatings.

System 2 is a chain-on-edge conveyor line consisting of 2 automatic coating booths, an oven, and flash off tunnels. The majority of facility emissions currently come from this coating system.

System 3 is a chain-on-edge conveyor coating line with three automatic coating booths, an electric oven, and a flash off tunnel.

In addition to the three coating systems, there is one test coating booth. This booth is used to manually spray new coatings for testing purposes. This booth is equipped with dry exhaust filters. Based on the records I reviewed, coating use is less than 200 gallons/month. Mr. Hinderliter refers to this booth as the "exempt" booth. This booth has a batch oven next to it with a maximum heat input capacity of 350,000 Btu/hr. Both the booth and the oven are covered under general permit to install No 132-07.

PTI No. 131-09C

PTI No. 131-09 was originally issued on September 15, 2009 because a new coating line was installed (EU-SYSTEM2). Installing EU-SYSTEM2 caused the facilities potential to emit HAPs and VOC to increase above major source thresholds. The source-wide opt-out limits for HAPs & VOC contained in this permit were needed for Progressive Finishing to avoid being subject to EGLE's Renewable Operating Permit (ROP) program. There have been three modifications of this permit. The most recent, 131-09C, was modified to remove the EU-SYSTEM3 conditions and move them to the general permit.

EU-SYSTEM2

EU-SYSTEM2 is an automotive plastic parts coating line that consists of two robotic paint booths and one

natural gas-fired cure oven. Both spray booths are controlled by dry filters.

Section I – SC 1,2: Limits VOC and Acetone emissions from EU-SYSTEM2 to 45 TPY and 4.2 TPY, respectively, based on a 12-month rolling time period. The records I reviewed show that for the 12-month period ending in December 2019, VOC emissions from System 2 are 27.95 tons. Total Acetone emissions are reported at 2.45 tons for this same time period. The facility appears to comply with these limits.

Section II – SC 1: Limits the VOC content of coatings used in EU-SYSTEM2 to 3.9 lb/gallon, minus water, as applied. In 2019, the highest (and currently the only) VOC coating used in System 2 has a VOC content of 3.6 lb/gallon, minus water, as applied.

Section III – SC 1: Requires the permittee to capture all waste materials and store them in closed containers. Waste coatings are disposed of in a 5-gallon container outside of the booths. Any purge solvent is also disposed of in these containers. These containers are periodically transferred to a larger waste solvent drum that is eventually picked up by Crystal Kleen to be disposed of.

Section III – SC 2: Requires the permittee to dispose of spent filters in a way that minimizes the introduction of air contaminants to the outer air. Booth filters are bagged in sealed plastic before they are thrown away.

Section III – SC 3: Requires the permittee to handle all VOC and/or HAP containing materials in a manner that minimizes fugitive emissions. I observed that solvent containers were stored neatly with their lids fitted on securely.

Section IV – SC 1: States that the permittee shall not operate EU-SYSTEM2 unless the dry filters on both booths are installed. I observed that both robotic spray booths were equipped with dry filters. The filters appeared to fit snugly. The filters are located on the wall and the spray direction is horizontal towards the filter.

Section IV – SC 2: Requires the permittee to equip EU-SYSTEM2 with HVLP applicators (or comparable technology). All applicators at Progressive Finishing are HVLP applicators.

Section V – SC 1: Requires the permittee to determine the VOC content of any coating, as applied, using EPA Method 24. With prior approval, this condition allows Progressive Finishing to use manufacturers VOC data in lieu of doing a Method 24 analysis on every coating. AQD granted Progressive Finishing this approval under the condition that the facility perform one Method 24 analysis on a currently used coating each year, utilizing a different coating each year. Progressive Finishing sent AQD the results of their 2019 Method 24 analysis on December 3, 2019. The coating "Sandstone" was selected. The analysis showed the material to be 2.61 lbs per gallon VOC, less water.

Section VI – SC 1,2,3: Specifies recordkeeping requirements for EU-SYSTEM2. Progressive Finishing must keep records of the chemical composition of each coating used and the amount of each coating used/reclaimed. This information must be used to calculate the monthly and 12-month rolling VOC emissions and acetone emissions.

These records were made available to me during my inspection ([see attached](#)). Coating composition information is maintained electronically and on paper. The amount of coating used is recorded by booth operators on paper logs at the beginning and end of each shift. The paper usage logs are routinely entered into a database that tracks total coating usage.

Mr. Hinderliter conducts his own audits on coating usage as well. Mr. Hinderliter uses a measuring dip stick to assess the volume in each bulk coating container on a monthly basis. The difference between coating liquid levels can be used to estimate usage. Mr. Hinderliter compares his dip stick audits to the usage logs maintained by booth operators and selects the highest of these two usage values to report to the AQD. The records show 12-month rolling VOC emissions at 27.15 tons in December 2019.

Section VIII – SC 1: Specifies stack parameters. I did not verify stack parameters during this inspection. Stacks appeared to be discharged unobstructed vertically upwards.

FGFACILITY

Section I – SC 1,2,3,4,5: Specifies facility-wide emission limits for Individual HAPs, Aggregate HAPs, VOC, and Naphthalene. Based on the records I reviewed during my inspection, these emission limits have not been exceeded. Total facility-wide HAP emissions are reported at 0.54 tons for the 12-month period ending in

December 2019. Facility-wide VOC emissions are reported at 31.23 tons for the 12-month period ending in December 2019. No naphthalene emissions were reported in 2019.

There is a VOC emission limit of 30 tons per year that applies to any plastic part coating line operating as exempt from the requirements of Rule 632 pursuant to R 336.1632(15)(i) in FGFACILITY. System 1, System 3, and the test coating booth operate as exempt from the standards of Rule 632. Combined VOC emissions from System 1, System 3, and the test coating booth are approximately 4.1 tons.

Section II – SC 1,2,3,4: Specifies facility-wide material limits. The VOC content of coatings is limited differently for each coating line (see table below). I reviewed material usage data for 2019 and 2018. Based on the records I reviewed, Progressive Finishing is in compliance with all material limits.

Material Limits (From PTI No. 131-09C)				Reported Values	
Material	Maximum VOC Content, As Applied (lb/gallon)	Annual Usage Limit	Equipment	2019 Usage (gallons)	Max VOC Content in 2019, As Applied (lb/gallon)
1. Coatings	6.2	3,226 gallons (with water) per year	EU-SYSTEM1*	879	6.05
2. Coatings	3.5	25,728 gallons (with water) per year	EU-SYSTEM2	15,085	3.6
3. Coatings	2.5	8,000 gallons (with water) per year	EU-SYSTEM3*	70	1.02
1. Coatings	9	1,335 gallons (with water) per year	All Lines Operating Under an Exemption	1175	6.89

The table above shows and exceedance of the VOC content limit as applied. During an annual Method 24 Audit, Progressive Finishing found that the coating they are using on System 2 (Sherwin Williams G56B1068 Black) has a VOC content of 3.6 lb/gallon instead of the 3.5 lb/gallon listed on the manufacturer specification sheet. This is the only coating used in system 2, and it is the coating that the permit limit was based on. Mr. Hinderliter self-reported this exceedance to the AQD in October 2017. The AQD did not issue a violation notice at this time.

Going forward from October 2017, Mr. Hinderliter modified his emission spreadsheets to show that the System 2 caotin has 3.6 lb/gallon VOC, rather than 3.5 lb/gallon. After this inspection, I asked Mr. Hinderliter to submit a PTI modification request to increase the maximum VOC content as applied of System 2 coatings. Mr. Hinderliter agreed to submit this PTI modification.

I discussed this issue with AQD district supervisor Ms. Joyce Zhu. AQD will not issue a violation notice for this exceedance provided that Progressive Finishing submits a PTI modification application in a timely manner.

Section V – SC 1: Requires the permittee to determine the HAP content of any material as received and as applied, using manufacturer's formulation data. This information is maintained. Mr. Hinderliter maintains a database of all coatings used at the facility. This database consolidates the manufacturer's HAP data into a spreadsheet. This HAP data spreadsheet informs the emission calculation spreadsheet.

Section V – SC 2: Requires the permittee to determine the VOC content of any coating, as applied, using EPA Method 24. With prior approval, this condition allows Progressive Finishing to use manufacturers VOC data in lieu of doing a Method 24 analysis on every coating. AQD granted Progressive Finishing this approval under the condition that the facility perform one Method 24 analysis on a currently used coating each year, utilizing a different coating each year. Progressive Finishing sent AQD the results of their 2019 Method 24 analysis on December 3, 2019. The coating "Sandstone" was selected. The analysis showed the material to be 2.61 lbs per gallon VOC, less water.

Section VI – SC 1,2,3,4: Specifies monitoring/recordkeeping requirements for FG FACILITY. Progressive Finishing must maintain all records necessary to demonstrate compliance with emission limits and material use limits. Mr. Hinderliter was able to show me all of these records during my inspection (see attached). See table below for a summary of some of these records.

Table: VOC emissions for the 12-month period ending in December 2019

Coating System	VOC Emission Limit (tons)	Reported VOC emissions (tons)
System 1	NA*	0.61
System 2	45	27.15
System 3	NA*	0.4
Exempt Booth	NA*	3.07
Plant Total	89.9	31.23

*Summed VOC emissions from System 1, System 3, and the test coating booth are limited to 30 tpy.

Mr. Hinderliter maintains records each time a coating is used, the booth the coating was used in, the amount of coating used, and the chemical composition of each coating (as applied and as received). Mr. Hinderliter uses this data to calculate the facility-wide VOC & HAP emission rates on a monthly and 12-month rolling basis. Additionally, these records are separated by coating systems. The emission rates for EUSYSTEM1, EUSYSTEM2, EUSYSTEM 3, and the Rule 201 exempt booth are all kept separately and summed to get the facility-wide emissions.

PTI No. 132-07

General Permit to Install No. 132-07 was issued on April 18, 2007 for a chain-on-edge conveyor coating line consisting of two manual spray booths, an oven, and flash off tunnels (System 1). This PTI includes conditions that allow the permittee to install additional coatings lines without applying for a new PTI. However, this permit does not contain ROP opt-out limits. When System 2 was installed, opt-out limits were needed. PTI No. 131-09 contains facility-wide ROP opt-out limits.

FG-COATING

Section I – SC 1,2: Establishes VOC emission limits for each coating line. VOC emissions are limited to 2000 lb/month/booth and 10 tons/year/booth. Based on the records I reviewed during this inspection, Progressive Finishing is in compliance with these emission limits (see attached).

Section III – SC 1: Requires Progressive Finishing to capture all purge/clean-up solvents and waste coatings from all coating applicators used in FG-COATING. Purge solvents, clean-up solvents, and waste coatings are captured and contained in sealed drums located outside of each coating booth. Some parts are precleaned with isopropyl alcohol soaked rags. These rags are also disposed of in these drums. Isopropyl alcohol emissions are included in the respective booth emissions.

For purging, the gun is removed from the paint line and paint is allowed to drip into a bucket. The paint lines are cleaned using acetone, MEK, or water depending on the type of coating sprayed. The appropriate solvent is run through the coating lines to clean out any leftover coating from the previous coating batch. The amount of purge solvent used varies depending on the length of the line. Mr. Hinderliter estimates around half a gallon of solvent is used for each purge.

Section IV – SC 1: Requires Progressive Finishing to equip and maintain each coating booth with HVLP applicators or equivalent technology. All booths at Progressive Finishing are equipped with HVLP applicators.

Section IV – SC 2: States that Progressive Finishing shall not operate any spray application unless particulate control (dry filters or a water curtain) is installed. All booths at this facility are equipped with dry filters. I

observed that these filters were relatively clean and were installed snugly such that there are no gaps. Each booth filter is changed after every 8 hour shift a booth operates.

Section V – SC 1: Requires the permittee to determine the VOC content of any coating, as applied, using EPA Method 24. With prior approval, this condition allows Progressive Finishing to use manufacturers VOC data in lieu of doing a Method 24 analysis on every coating. AQD granted Progressive Finishing this approval under the condition that the facility perform one Method 24 analysis on a currently used coating each year, utilizing a different coating each year. Progressive Finishing sent AQD the results of their 2019 Method 24 analysis on December 3, 2019. The coating “Sandstone” was selected. The analysis showed the material to be 2.61 lbs per gallon VOC, less water. A different coating is selected for each consecutive analysis per this condition.

Section VI – SC 3: Specifies recordkeeping requirements for FG-COATING. Progressive Finishing must maintain records of purchase orders, VOC content, the amount used, and the amount reclaimed of each coating used at the facility. This information shall be used to calculate VOC emissions on a monthly and 12-month rolling basis. These records were made available to me during my inspection. I collected copies of these records (see attached).

Section VI – SC 4: Requires Progressive Finishing to maintain a current listing from the manufacturer of the chemical composition of each coating. These records are maintained electronically and in binders located in the main lobby.

Section VIII – SC 1: Specifies stack requirements. Stacks must be discharged unobstructed vertically upwards to the ambient air at exit points not less than one and one half times the building height. The stacks at Progressive Finishing appear to conform to these permit standards. I did not take measurements to confirm stack dimensions during this inspection.

Section IX – SC 1: States that the permittee shall not replace or modify any portion of FG-COATING without notifying the AQD district supervisor. Additionally, any new equipment must comply with all conditions of PTI No. 132-07. No new equipment has been installed since the last AQD inspection in 2015.

FG-SOURCE

Section I – SC 1: This condition states that VOC emissions from all coating lines and all associated purge and clean-up operations at the stationary source are limited to 30 tons per year based on a 12-month rolling period. The AQD interpretation of this emission limit is that the 30 tpy “source-wide” limit in PTI 132-07 is/was only meant to apply to emission units operating as exempt from Rule 632 (System 1, System 3, and the test coating booth).

Based on the AQD Rule 632 exemption, total combined emission from all Rule 632 exempt coating lines is limited to 30 tons per year. System 1, System 3, and the test coating booth are operating as exempt from Rule 632. Based on the records I reviewed, Progressive Finishing is in compliance with this limit.

Section VI – SC 1: Progressive Finishing must demonstrate compliance with this limit by maintaining facility-wide (minus System 2) VOC mass emission calculations on a monthly and 12-month rolling period. These records were made available to me during my inspection (see attached). These records show that facility-wide emissions (minus System 2) were 4.1 tons for the 12-month period ending in December, 2019.

Compliance Determination

Progressive Finishing is not operating 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. 131-09C and 132-07.

Progressive Finishing exceeded the VOC content per gallon limit on the coating used in EU-SYSTEM2. The facility self-reported this exceedance and has remained in compliance with all VOC emission limits. Mr. Hinderliter agreed to modify the PTI to increase the lb/gallon VOC limit of coatings used in EU-SYSTEM2. If Progressive Finishing does not modify PTI NO. 131-09C in a timely manner, then a violation notice may be issued for this exceedance.

NAME Adam Bognar

DATE 9/25/2020

SUPERVISOR Sebastianykallemkal