

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

N207969288

FACILITY: Lacks Industries, Inc.		SRN / ID: N2079
LOCATION: 4375 52ND STREET SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Karen Homrich , Environmental Manager		ACTIVITY DATE: 05/23/2023
STAFF: April Lazzaro	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MEGASITE
SUBJECT: Unannounced, Partial Compliance Evaluation.		
RESOLVED COMPLAINTS:		

This inspection report constitutes a Partial Compliance Evaluation of the Lacks Paint East facility. Upon arrival, no odors or visible emissions were noted. On the day of the inspection at Paint East, my visit included the observation of paint booth airflow testing, and upon my arrival I informed Lacks it would also be a compliance inspection. I met with Karen Homrich, Environmental Manager shortly before 9:00 AM. We were met by Isaac Andrusiak, Jim Darby, Steve Lazarus and Kyle Estes.

FACILITY DESCRIPTION

Lacks Paint East is a part of the 52nd Street Mega-source located at 4375 52nd Street in Kentwood and conducts robotic painting on automotive plastic parts which primarily consists of one main coating line that applies a prime, base and clear coat to exterior plastic automotive parts. The company processes large grills for trucks as well as other trim parts. All the robotic booths at Paint East are recirculating booths with emissions captured and destroyed in one regenerative thermal oxidizer (RTO). The Paint East facility also contains a solvent distillation unit used for solvent recovery and a small use paint booth that is uncontrolled. This facility operates pursuant to Renewable Operating Permit (ROP) No. MI-ROP-N2079-2017. No deviations for the January-June 2023 compliance period were reported for the Paint East operations.

EUPRIMEMANUAL

This EU consists of a manual spray booth that is limited to 45.0 tons VOC per 12-month rolling time period. VOC emissions from this booth are uncontrolled, particulate emissions are controlled by a down-draft water wash system. Reported 12-month rolling VOC emissions for the time frame of May 2022-April 2023 were 24.44 tons, (up from 16.46 tons during the previous inspection) which indicates compliance with the limit. During a previous inspection, the recordkeeping program was observed from the mix room. The operator pulls up the “recipe” for the paint to be mixed on the computer. The recipe tells the operator exactly how much of each ingredient is added to the batch in either weight or volume. Then the computer program takes that information and transfers it as a coating, reducer and solvent used for that day and month. Monitoring and recordkeeping appeared to be conducted to meet permit requirements.

EUBASEMANUAL

This EU consists of a manual spray booth that is limited to 60.0 tons VOC per 12-month rolling time period. VOC emissions from this booth are uncontrolled, particulate emissions are by a down-draft water wash system. Reported 12-month rolling VOC emissions for the time frame of May 2022-April 2023 were 0.09 tons (up from 0.08 tons during the previous inspection) which indicates compliance with the limit. Monitoring and recordkeeping appeared to be conducted to meet permit requirements.

EUCLEARMANUAL

This EU consists of a manual spray booth that is limited to 30.0 tons VOC per 12-month rolling time period. VOC emissions from this booth are uncontrolled, particulate emissions are by a down-draft water wash system. Reported 12-month rolling VOC emissions for the time frame of May 2023-April 2023 were 3.34 tons (down from 3.37 during the previous inspection) which indicates compliance with the limit. Monitoring and recordkeeping appeared to be conducted to meet permit requirements.

FGEASTPAINT

This FG consists of 13 spray booths and one oven with some VOC emissions controlled by a regenerative thermal oxidizer (RTO) and particulate emissions controlled by the down-draft water wash system. It is noted that EUPRIMEMANUAL, EUBASEMANUAL and EUCLEARMANUAL are contained in this flexible group, the VOC emissions from those 3 booths and associated ovens are not controlled by the RTO. All automatic spray booths have 90% re-circulated (through the air boxes) air while 10% is captured and destroyed by the RTO. The company’s paint flush system is a mostly closed loop system; the

paint spray nozzles are placed in an enclosed unit, then the flush solvent is drained into a sealed drum. Waste solvent is pumped out of the booth to a carrier drum which is then placed in a larger tote. Purge and cleanup solvent emission losses appear to be minimized. All spray booths use down-draft water-wash particulate control which was working properly at the time of the inspection.

VOC emissions are limited to 45.0 pounds per hour, 11.1 tons per month and 111.61 tons per year based on a 365-day rolling time period as determined at the end of each calendar day.

Records were reviewed for the time period of January 2022-March 2023 and the highest hourly emission rate reported for a day of operation was 26.90 pounds per hour (February 2, 2023) and the highest hourly emission rate reported for 1.51 hours of operation was 38.22 pounds per hour. which are below the limit of 45.0 pounds. Attached are records that include the breakdown of coating VOC calculations for manual and automated paint booths. The company is using 100% capture efficiency in the calculations which is unlikely due to the paint odor in the plant environment. However, they routinely conduct a qualitative capture test using smoke tubes that indicates air flow is into the booths which meets the monitoring requirement. The reported values are below the permitted limit.

Records were reviewed from January 2022 through March 2023 and indicate that the reported monthly emissions for FGEASTPAINT are below the 11.1 ton per month limit. Emissions for March 2023 were 5.01 tons (up from 3.64 tons during the previous inspection) which was highest for the time frame of February 2022-April 2023. The reported value is below the permitted limit.

Records were reviewed from January 2022 through March 2023 and indicate that the reported monthly emissions for FGEASTPAINT are below the 111.61 ton per year based on a 365-day rolling time period limit. 365-day rolling emissions through April 30, 2023, are reported at 39.31 tons of VOC (up from 28.26 tons during the previous inspection). The reported value is below the permitted limit.

The RTO calibration reports was requested for 2022 and 2023. The 2022 calibration was conducted on July 23, 2022. As of the date of the inspection, the 2023 calibration had not yet been conducted.

The RTO temperature is required to be at or above 1,400°F. During the inspection, the RTO temperature was 1,416°F, with supplemental natural gas. Testing of the RTO was last conducted in 2022, which indicated compliance with the destruction efficiency requirement. The down-draft water wash particulate system appeared to be installed and operating properly. All electrostatic applicators are equipped with a device to prevent electric current from being shut off. The temperature of the RTO occasionally goes below 1,400°F. Each time that occurs, the line shuts down the painting operations immediately and no emissions exceedances are reported.

Coating line automatic shutdown interlock testing is required to be conducted once every 2 years according to the permit based on the Compliance Assurance Monitoring (CAM) Plan. This testing was late in 2022, but the testing indicated the interlock was operational, and as such no violation was cited.

Record of Method 24 testing for the 5 most frequently used coatings plus 2% of the remaining coatings were requested and received. During the last inspection, it was noted that these records with the lab information are not particularly clear and further interpretation/extrapolation should be conducted in the future to ensure they compare with the data provided. While this time it was clearer to identify what the coatings were, the results do not exactly match the coatings in the database. Lacks should determine how to ensure accurate test data is inserted into the recordkeeping as appropriate.

Additionally, environmental data sheets (EDS) or other similar data was requested and received for review. This review found that the information was not readily available to Lacks staff, nor did the information appear to have been reviewed recently. A comparison of the data received from suppliers was made to the information contained in Lacks reporting database. It was noted that the Lacks database requires updating and refers to approvals by a Lacks employee that has not worked there in years, indicating the new coating approval path has not been conducted by Lacks.

Daily and monthly emissions records were requested and received as indicated above and were sufficient to determine compliance with the emission limits. Elements of the requirements for CAM appear to have been met.

During the facility inspection, a full walk through was conducted, including the air boxes and the roof ductwork. All equipment appeared to be of sound condition. It is noted that while the paint booths are considered non-fugitive enclosures, there is a very strong smell of paint and associated solvents throughout the in plant environment.

The spinelle chromic acid pre-treatment process was installed in 2004 per permit exemption Rule 285(2)(r)(vii) for electroplating metal treatment processes that are internally vented.

FGSUBPARTPPPP

This FG consists of each new, reconstructed, and existing affected source engaged in the surface coating of plastic parts and products subject to 40 CFR Part 63 Subpart PPPP. Lacks currently has chosen the emission rate without add-on controls and the existing general use coating limit of no more than 0.16 kg organic HAP emitted per kg coating solids. This option requires that the coatings, thinners and/or additive and each cleaning materials used have an organic HAP emission rate less than the limit chosen, calculated as a rolling 12-month emission rate as determined on a monthly basis. Information was requested for thinning solvent and a review of the information provided verified that they contain no organic HAP.

The calculation of the organic HAP content for each material used including mass fraction of coating solids and coating density was requested and received. The review of this information indicates compliance with the NESHAP. Compliance with the NESHAP is achieved by including the solids content of the 2-part foam used at the Barden Distribution Facility. Information on the 2-part foam usage was provided to EPA Region 5 for assistance in determining whether a foam is considered an adhesive per the NESHAP definition. The NESHAP does allow for the use of a "reactive adhesive" as defined, however in the regulation and supporting documentation there is no mention as to whether that includes a 2-part foam. EPA Region 5 confirmed that the use of the 2 part foam is not considered a reactive adhesive by definition. As such, the use of those materials in the averaging equation is not acceptable. Since the previous inspection, Lacks has removed the foam materials from the averaging equation.

Because Lacks does not utilize add-on controls to meet the emission limit, the monitoring is not presumptively acceptable for CAM and as such, CAM still applies to the emission units affected which includes the three RTO's at the Paint East, Central and West facilities

O&M Plan:

The company operates all emission units at East Paint in accordance with the most recent O&M Plan which is dated July 15, 2014. There have been some updates to include the EGLE name (which changed in 2019), in addition to references to DEQ, so the actual revision date is unknown. The substance of the plan is acceptable and is followed.

FGRULE287(2)(C)

EUEASTSAMPLEBOOTH1

EUEASTSAMPLEBOOTH2

Coating usage records were requested for EUEASTSAMPLEBOOTH1 and EUEASTSAMPLEBOOTH2 which utilize the Rule 287(2)(c) exemption which limits coating usage to less than 200 gallons (minus water) per month. Both booths are used infrequently and the EUEASTSAMPLEBOOTH1 has not operated in the past 6 months. The usage for EUEASTSAMPLEBOOTH2 has used 1.0 gallons or less. The records indicate compliance with the limit established in the exemption.

FGRULE290

EUWASTESOLVRC

The facility has a waste solvent recovery distillation unit used to recover flush and purge solvents used on the coating lines. The unit once was permitted, but in the meantime, the company has demonstrated that this equipment is exempt under Rule 290. VOC emissions from the solvent distillation unit are reported at zero pounds per month because of the monthly calculation methodology. This has been scrutinized as it is unlikely to be zero emissions. File information has been obtained and reviewed, and it does appear that emissions from the distillation unit are less than the 1,000 lb/month limits of Rule 290, however the calculations should be adjusted accordingly. During the previous inspection, it was noted that the facility is working to update the records. Updates to the calculations have been completed.

SUMMARY

Lacks 52nd Street Paint East facility appeared to be in compliance at the time of the inspection, however additional work in specific areas as noted above is needed. A significant amount of records were requested and reviewed as part of this Partial Compliance Evaluation. All records are attached.

NAME April Lazzaro

DATE 10/18/2023

SUPERVISOR HH