

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

N207964762

<b>FACILITY:</b> Lacks Industries, Inc.		<b>SRN / ID:</b> N2079
<b>LOCATION:</b> 4375 52ND STREET SE, KENTWOOD		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> KENTWOOD		<b>COUNTY:</b> KENT
<b>CONTACT:</b> Karen Baweja , Environmental Manager		<b>ACTIVITY DATE:</b> 05/25/2022
<b>STAFF:</b> April Lazzaro	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MEGASITE
<b>SUBJECT:</b> Unannounced, scheduled inspection.		
<b>RESOLVED COMPLAINTS:</b>		

This inspection report constitutes a Partial Compliance Evaluation of the Lacks Paint East facility and the Barden Distribution facility. Upon arrival at each facility, no odors or visible emissions were noted. On the day of the inspection at Paint East, my visit was planned to observe paint booth airflow testing, and upon my arrival I informed Lacks it would also be a compliance inspection. I met with Karen Baweja shortly before 9:00 AM.

#### FACILITY DESCRIPTION

Lacks Paint East is a part of the 52<sup>nd</sup> 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 boot that is uncontrolled. This facility operates pursuant to Renewable Operating Permit (ROP) No. MI-ROP-N2079-2017.

#### 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 April 2021-April 2022 were 16.46 tons 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 April 2021-April 2022 were 0.08 tons 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 April 2021-March 2022 were 3.37 tons 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 VOC emissions controlled by a regenerative thermal oxidizer (RTO) and particulate emissions controlled by the down-draft water wash system. 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 2021-March 2022 and the highest hourly emission rate reported was 24.93 pounds per hour (February 22, 2021) which is 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.

Records were reviewed from January 2021 through April 2022 and indicate that the reported monthly emissions for FGEASTPAINT are below the 11.1 ton per month limit. Emissions for March 2022 were 3.64 tons and the highest for the time frame of January 2021-April 2022 was February 2022 at 3.8 tons. 365-day rolling emissions through April 30, 2022 are reported at 28.26 tons of VOC. Both reported values are below the permitted amount.

The RTO calibration reports was requested for 2020 and 2021 which were conducted on December 26, 2020, and August 6, 2021, respectively. Prior to calibration the temperatures were within an appropriate margin of error. The 2021 and 2022 annual RTO inspection reports were also requested and received, both indicated minor routine maintenance activities were conducted. It is noted that the 2021 report had additional details, which are the type AQD expects to see in the maintenance reports going forward.

The RTO temperature is required to be at or above 1,400°F. During the inspection, the RTO temperature was 1,496°F. Testing of the RTO was last conducted in April of 2017 and indicated a destruction efficiency of 96.41% which is above the minimum 95%. The current permit requires testing within 5 years of permit issuance and as such, the RTO must be tested prior to November 2, 2022. The stack test is scheduled to take place on October 19, 2022. 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 shut down interlock testing is required to be conducted once every 2 years according to the permit based on the Compliance Assurance Monitoring (CAM) Plan. I emailed the facility as it was due by September 9, 2022 for both Paint East and Paint West. This testing appears to be late. If the interlock testing fails, a Violation Notice will be issued.

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.

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, with the exception noted above.

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. The RTO is scheduled to be painted, and I pointed out what appeared to be a possible "hot spot" on the roof. Facility staff stated they will ensure that is fully inspected.

The spinelle chromic acid pre-treatment process is not included in the current permit, and it is unclear why. Unlike the spinelle system installed at Paint Central, this process is uncontrolled, and smaller. I requested the installation date of the Paint East spinelle process and was told it was installed in 2004 per permit exemption Rule 285(2)(r)(vii) for electroplating metal treatment processes that are internally vented.

All referenced records are attached.

#### 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. Using the compliance data provided by Lacks, the elimination of all of the solids at the Barden Distribution facility does not impact compliance with the NESHAP. Some of the solids used at that facility are adhesives, so using the current conservative approach, Lacks appears to be in compliance with NESHAP.

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. Except as noted above, the requirements of the CAM Plan are being met.

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 largest month of use was in April 2021 with 23 ounces of coating applied in EUEASTSAMPLEBOOTH2. 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. The facility is working to update the records.

##### **EUASSEMBLYOPS**

This series of equipment is located at the Barden Assembly facility and currently consists of 17 Rule 290 emission units. The existing permit lists one emission unit, and one flexible group. This will be clarified into each distinct emission unit with the permit renewal. The emission units consist of the following: nine stand-alone adhesive operations, six foam lines, one prime booth, one gasket machine using mold release. Lacks has provided information so that the emission units can be listed in the permit.

The emissions from all units are maintained in one spreadsheet, and combined are less than the Rule 290 limit of 1,000 lbs of VOC per month. A review of components used on the various lines was conducted, and several materials were found to be in the less than 20 pounds per month Rule 290 category. Additional information related to whether or not those materials are emitted or are consumed by a 2-part chemical reaction is being researched. Emissions data was requested and received, and a review found that work is needed to further speciate emissions from these sources. Since emissions of all emission units combined are below the 1,000 lb per month limit, the current format is acceptable, however emissions from materials that are restricted to less than 20 lbs per month must be maintained separately.

**FGJJJJ**

**EUPSVGENSET consists of One 40 BHP, natural gas fueled, 4 stroke rich burn, spark ignition internal combustion engine designed to provide 20kW of electrical power. Located at the Protective Services Building. This small generator is used to provide basic energy needs in the event of a larger outage. The monthly usage log and 12-month rolling usage was requested and received, which shows that the unit is operated less than 2 hours per month for maintenance/readiness testing. The unit is serviced by the manufacturer per specifications and the most recent inspection was conducted on April 12, 2022.**

**SUMMARY**

**Lacks 52<sup>nd</sup> Street facility appeared to be in compliance at the time of the inspection.**

NAME *April Lazzaro*

DATE 09/23/2022

SUPERVISOR *HH*