

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

N207961213

FACILITY: Lacks Enterprises, Inc.		SRN / ID: N2079
LOCATION: 4375 52ND STREET SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Karen Baweja , Environmental Manager		ACTIVITY DATE: 12/16/2021
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MEGASITE
SUBJECT: Partial Compliance Evaluation of Paint West facility that coincided with the Robotic Spray Booth Air Flow Test.		
RESOLVED COMPLAINTS:		

On December 16, 2021, Air Quality Division (AQD) staff April Lazzaro conducted a scheduled Partial Compliance Evaluation of the Lacks Enterprises 52nd Paint West, facility. The primary contact on the inspection was Karen Baweja; Supervisor of Air Quality. The purpose of the inspection was to verify the compliance status of the Paint West facility with requirements contained in Section 1, of ROP No. MI-ROP-N2079-2017, as well as state and federal air pollution regulations. No odors or visible emissions were noted upon my arrival at the facility.

FACILITY INFORMATION

The Lacks Enterprises stationary source consists of 52nd Paint East, 52nd Paint West, 52nd Mold, Barden Assembly, and Barden Plater. This stationary source is a major source of VOC and hazardous air pollutants (HAPs) and permitted under ROP No. MI-ROP-N2079-2017. Although the source is a major stationary source, it is a synthetic minor source with respect to Prevention Significant Deterioration (PSD) requirements. The entire stationary source is subject to the Plastic Parts Surface Coating NESHAP (40 CFR Part 63, Subpart PPPP) and the Barden Plater is subject to the Chromium Electroplating NESHAP (40 CFR Part 63, Subpart N). The Paint East and Paint West coating lines are also subject to Compliance Assurance Monitoring (CAM) requirements (40 CFR Part 64).

COMPLIANCE EVALUATION

The 52nd Paint West facility consists of eight robotic booths that apply resist coatings and five manual booths that apply top coatings to exterior plastic automotive parts. All of the robotic booths are recirculating booths with emissions captured and destroyed in an RTO. This plant also has a solventless mask washer.

O&M Plan:

The company operates all emission units at Paint West in accordance with the O&M Plan which was most recently updated on November 18, 2019.

FG-WESTROBOPAINT

The company has eight robotic spray booths used to apply resist coatings. The parts are masked, and the resist coating is applied so the part can be plated. Booths 1, 3, 6, 7, and 8 all have two robot applicators and two downdraft, dry filter exhaust points. Booth 2 has one robot applicator with dry filter. Booths 1, 4 and 5 are idled. There is one oven associated with these booths. Each booth uses HVLP spray guns in accordance with the permit. All dry filters on the robot booths are

changed once per shift and the filters appeared to be installed and maintained properly.

Each auto booth recirculates approximately 80% of the air, the remaining exhaust goes to the RTO. These booths are required to have all airflow at each natural draft opening (NDO) going into the booth. The facility is also required to determine the airflow of NDOs using a smoke tube method on a semi-annual basis. The last test was conducted on the day of this PCE (12/16/21). All airflows were into the booth at NDOs during the test at various strengths. I did recommend that Lacks us a 5-point system and “puff” at each of the four corners and once at the middle of the booth to ensure proper capture.

RTO:

The RTO is installed and appeared to be operating as designed. The RTO combustion chamber temperature was operating around 1,503°F which is above the 1,400°F minimum temperature limit in the permit. The RTO setpoint is 1,500°F. The temperature is monitored by use of a thermocouple located in the combustion zone between the two regenerative columns of the oxidizer. This is consistent with the CAM Plan. The thermocouples were last calibrated on August 12, 2021. The company continuously monitors and records the temperature of the RTO using a circular chart (which is changed every week) and a thermocouple. In addition, this RTO has a computer monitoring system that displays and stores continuous temperature and operating information for the RTO. The RTO is interlocked with the paint booths so that if the RTO malfunctions, the booths automatically and simultaneously shutdown.

Lacks reports all RTO shutdown occurrences on the semiannual report. Any occurrences where the temperature was below the required temperature were documented on the chart and work orders identified. A test to verify coating line shutdown when the RTO temperature is below 1,400°F is required once every two years. This was most recently conducted on September 9, 2020, during which time I was onsite to observe. (see MACES report CA N207955209) The RTO appeared to be maintained appropriately.

Lacks follows the requirements pursuant to Compliance Assurance Monitoring (CAM) for the thermal oxidizer, and reports excursions and/or exceedances as required. No compliance issues related to CAM were identified during the inspection and subsequent records review.

No visible emissions were observed during the inspection and all stacks appeared to be within permitted dimensions. The most recent destruction efficiency test was conducted in August 2017 and the destruction efficiency of the RTO was determined to be 95.26%. A new destruction efficiency test must be conducted prior to November 2, 2022.

FG-WESTMANUAL

FG-WESTMANUAL was permitted for nine manual spray booths and one bake oven used to apply resist coat and finish coat. Currently five booths (EUWESTMANUAL1, EUWESTMANUAL2, EUWESTMANUAL3, EUWESTMANUAL4 and EUWESTMANUAL10) and one oven are installed. There are four booths in the paint shop area and one in the waste treatment area. The booths that have been removed

cannot be reinstalled without a new Permit to Install. All guns are equipped with HVLP nozzles. All the manual booths are vented to the ambient air uncontrolled. The filters were installed and maintained properly.

For FGWESTMANUAL the company continuously monitors and records the temperature of the curing oven using a circular chart to ensure that the temperature is below 194°F. Records of the bake oven temperature charts were requested and received timely. A review of the data indicates that all temperatures for the days requested were below 194°F.

Paint West Emissions:

The company uses a database for calculating and recording emissions. Process personnel at the facility populate the database with the VOC data as obtained from manufacturer/supplier information. An extensive number of records from various months and days were requested and received timely. (see attached)

<u>Emission Unit</u>	<u>Limit</u>	<u>Actual</u>	<u>Comment</u>
FGWESTMANUAL	460 lbs/day based on a 24-hour averaging period	Less than 460 lbs/day: the highest monthly emissions was 345 which is less than the 24-hour limit	Pass
FGWESTMANUAL	5.8 tons/month	0.17 tons/month	Pass
FGWESTMANUAL	70.0 tons per year/12-month rolling	0.9 tons/12-month rolling	Pass
FGWESTMANUAL	5.75 lbs/gal Red/black based on a calendar day average		Pass
FGWESTMANUAL	5.0 lbs/gal Non-Red/black based on a calendar day average	There were 18 days in 2021 where the calendar day average VOC content	Fail- 18 exceedances

		of 5.00 lbs/gal was exceeded	
FGWESTMANUAL	Exotic coatings: 10% by volume of all coatings applied	Exotic coatings are not used at the facility	Pass
FGWESTROBOPAINT	80 pounds/day	< 39.00 lbs/day	Pass
FGWESTROBOPAINT	1.0 tons/month	< 0.2 tons/month	Pass
FGWESTROBOPAINT	11.7 tons/12-month rolling	2.0 tons/12-month rolling	Pass

The company verifies the VOC content of the five most frequently used coatings, plus 2% of remaining coatings by sending samples to a lab for analysis as required. The last Method 24 analysis was conducted in May 2021, where 17 samples were analyzed. There was a delay in entering the Method 24 results into the emissions database until November 2021, during which time exceedances occurred that were not identified and were not reported in the ROP deviation report for the January-June 2021 reporting period.

MEK is the main solvent used for cleaning and gun flushing at this facility. During the inspection, observations made in the paint kitchen indicated that housekeeping and installing a lid on the parts washer was needed. Lacks indicated a lid would be installed as soon as possible.

FG-WESTMISPAIN

In the ROP, this flexible group consists of the strip tank (EUWESTSTRIPTANK) and miscellaneous cleanup operations from the paint kitchen (EUWESTPAINTKITCHEN). However, the emission limits in the ROP basically cover the strip tank. AQD staff verified that the strip tank was installed with the lid closed. There is no stack present on this tank as identified in the ROP which should be addressed in the next ROP renewal. The Safety Data Sheet (SDS) and Emissions information was requested and received timely. This emission unit has a VOC limit of 1.4 lbs/hr as determined at the end of each 24-hour production day and a 2.0 tons/year limit based on a 12-month rolling time period as determined at the end of each calendar month. The unit appears to be in compliance with the emission limits based on solvent usage as described below. The company basically fills this tank about once per year, with one 55 gallon addition. As the levels in the tank decline, water is added to increase the volume until the solution is too diluted to be useful. The last time the

solvent (aquastrip) was added was in December 2020 and is comprised of 50% benzyl alcohol and is completely soluble in water.

FGRULE287- EUWESTASSEMBLY

There is a small, dry filter spray booth (EUWESTASSEMBLY) used to apply masking agent to parts which is used on a limited basis. This booth is in compliance with Rule 287(2)(c) requirements as coating usage for 2021 was 4.81 gallons.

FGSUBPARTPPPP

In order to comply with the Plastic Parts Surface Coating NESHAP, the company is using the emission rate without add-on control option. Therefore, the company is required to meet a total HAP emission limit of 0.16 pounds per pound of coating solids for all coating operations. The stationary source averages the HAP content of coatings from the following facilities to meet this limit: Barden Assembly, Paint West, Paint Central and Paint East. The company has demonstrated that it is calculating the mass fraction of organic HAP for each coating, the mass fraction of coating solids for each coating, and the density. The organic HAP emissions through June 2021 were 0.081 pounds of HAP per pounds of solids which indicates compliance for that time period.

CONCLUSION

Lacks Enterprises, Inc. Paint West facility was in non-compliance at the time of the inspection.

NAME April Lazzaro

DATE 02/03/2022

SUPERVISOR HH