

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

N764558302

FACILITY: LAKELAND MONROE GROUP - PLANT 2		SRN / ID: N7645
LOCATION: 5400 36TH ST SE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Norm Day , Director of Operations		ACTIVITY DATE: 06/10/2021
STAFF: David Morgan	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

At 8:30 A.M. on June 10, 2021, Air Quality Division (AQD) staff Dave Morgan conducted an on-site inspection of Lakeland Monroe Group located 5400 36th Street in Kentwood. The purpose of the inspection was to determine the facility's compliance with Permit to Install (PTI) No. 224-06A as well as state and federal air pollution regulations. Accompanying staff on the inspection from Lakeland Monroe Group was Norm Day, Director of Operations; Brandon Clark, Operations Manager; Joan Schulpa, Quality Manager; and Denise Mogg, recordkeeping. Also present was Andy Boddy and Nate Cottrell of Advanced Environmental Services. Covid-19 protocols were followed during the inspection.

FACILITY DESCRIPTION

Lakeland Monroe Group paints plastic interior automotive parts, using air dried coatings. The facility is permitted for five water-based and solvent-based coating lines under PTI No. 224-06A. The company's volatile organic compound (VOC) and hazardous air pollutant (HAP) potential to emit is limited under PTI No. 224-06A and therefore the source is considered a synthetic minor source.

COMPLIANCE EVALUATION

FGCOATLINES:

This flexible group covers EUCOATINGLINE01, EUCOATINGLINE03 and EUCOATINGLINE04 which are used to paint plastic automotive parts. EUCOATINGLINE2 is also covered under FGCOATLINES but has not been installed. Should the company choose to install this line, it will need to go back through the new source review permit process.

EUCOATLINE01 consists of Booths 1 thru 4 and a natural gas-fired oven. Booths 1 and 2 are manual booths and booths 3 and 4 are robotic. All filters in the booths were installed and appeared well maintained. The purge bucket in each booth was covered to minimize emissions.

The company uses Graco AirPro Pressure Feed spray guns in all robot booths. These guns are considered "compliant" by the manufacturer and have a transfer efficiency which meets the permit allowance for comparable technology with equivalent transfer efficiency. The gun manufacturer conducted transfer efficiency tests in accordance with European test standard EN13966. In addition, these guns have been approved as an alternative to HVLP by other state regulating agencies as well as USEPA. AQD staff viewed the gun types and verified that there have been no changes since previous AQD inspections. All manual booths at the facility use Graco Mach 1 HVLP spray guns.

The company is required to maintain the curing oven temperature below 194°F. At the time of the inspection the oven temperature on EUCOATINGLINE01 was 175°F. The company is maintaining a daily oven temperature log as required by the permit.

EUCOATLINE03, consists of Booth Nos. 9 thru 12 and an associated oven. Booths 10, 11, and 12 are used on a limited basis. Booth 13 which was in the original permit has been removed. Painting primarily occurs in Booth 9, which is a robot booth. All filters were installed and appeared well maintained. HVLP guns are used on this line. The purge bucket in Booth 9 was covered to minimize emissions.

The company is required to maintain the curing oven temperature below 194°F. At the time of the inspection the oven temperature was 187°F. According to Mr. Day, a daily record of the oven temperature is not maintained as required by the permit and is therefore a violation of PTI No. 224-06A, FGCOATINGLINES, Condition No. VI.5. A Violation Notice will be sent for this violation.

EUCOATLINE04 consists of three booths identified as Nos. 14, 15 and 16. Booth 14 is used to apply adhesion promoter or primer. Booth 15 is used to apply water-based and some solvent-based coatings. Booth 16 is a robot booth. All filters were installed and appeared well maintained. HVLP guns are used in these coating booths. The purge bucket in each booth was covered to minimize emissions.

The company is required to maintain the curing oven temperature below 194F for Line 4 as well. At the time of the inspection the oven temperature was 180°F. The company is not maintaining the once per day oven temperature record as required by the permit and therefore a violation will be cited for not meeting PTI No. 224-06A, FGCOATINGLINES, Condition No. VI.5.

All stacks from FGCOATINGLINES appeared to meet the minimum height and maximum diameter requirements. No visible emissions were observed.

EUCOATLINE05:

EUCOATLINE05 which began operating in October 2012, consists of Booth Nos. 17-19, an associated gas-fired convection oven, and a regenerative thermal oxidizer (RTO). In this line, Booth 17 has one handspray and one robot gun for applying primer. Booth 18 uses two robots that spray monocoat and Booth 19 uses two robots that spray clearcoat or topcoat. The robot spray guns used in this line also consist of the Graco AirPro HVLP guns in accordance with the permit. About 80% of the air in these booths is recirculated with the remainder being sent to the RTO. All filters in the booths were installed and appeared well maintained. The purge bucket in each booth was covered to minimize emissions.

At the time of the inspection, the RTO was operating at a temperature around 1,560°F which is above the 1,450°F minimum temperature requirement in the permit. In addition, the company monitors the temperature on a continuous basis using a digital data acquisition system. According to Mr. Day, the RTO data system is setup to record operating temperature, however, historical records are obtained through manual download through a USB port. The USB port is currently damaged and for the past 12 months, the company only had RTO temperature data from September 29, 2020 to October 30, 2020 and from May 8, 2021 to June 8, 2021. A violation will be cited for not having RTO temperature records according to PTI No. 224-06A, Condition No. VI.2. The company conducts annual maintenance on the RTO to evaluate the unit and rebalance the system.

The stack height of the RTO appeared to be above the minimum height requirement of 36 feet and the diameter appeared to meet the maximum diameter of 36 inches. There were no visible emissions from the RTO stack and the ductwork integrity appeared acceptable.

FGFACILITY, FGCLEANUP, FGCOATLINES and Recordkeeping:

Requirements under PTI No. 224-06A for FGFACILITY, FGCLEANUP and FGCOATLINES primarily consist of recordkeeping. The company uses spreadsheets that are maintained by Advanced Environmental, to keep track of emissions and material usage. The company is maintaining daily, monthly, and 12-month rolling records in accordance with the permit. In addition, the company is approved to use manufacturers' formulation data rather than Method 24 testing to verify the VOC content of coatings.

From June 2020 through May 2021 the company had the following emissions:

Equipment	Pollutant	Emissions	Limit	Comment
EUCoatLine01	VOC	22.9 tons	30.0 tpy	Compliant
EUCoatLine03	VOC	2.43 tons	36.6 tpy	Compliant
EUCoatLine04	VOC	15.35 tons	50.0 tpy	Compliant
EUCoatLine05	VOC	1.13 tons	11.6 tpy	Compliant
FGCoatinglines	VOC	40.68 tons	80.8 tpy	Compliant
FGCoatinglines	dimethylethanoamine	0.0 lbs/day	5.6 lb/day	Compliant
FGCoatinglines	diethylene glycol monobutyl ether	0.0 lbs/day	7.0 lb/day	Compliant
FGCoatinglines	xylene	<35.4 lb/day (highest on 7/29/2020)	35.4 lb/day	Compliant
FGCoatinglines	hexamethylene diisocyanate	<0.0033 lb/ day (highest on 12/29/20)	0.0034 lb/day	Compliant
FGCoatinglines	napthalene	0.0	3.3 lb/day	Compliant
FGCleanup	VOC	0.73 tons	6.1 tpy	All cleanup & purge
FGFacility	VOC	42.54 tons	90 tpy	Compliant
FGFacility	HAP (highest individual being xylene)	1.79 tons	9.0 tpy	Compliant
FGFacility	HAP (aggregate)	2.90 tons	22.5 tpy	Compliant

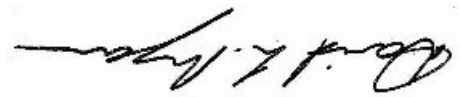
** It is noted that the company assumes that 99% of the hexamethylene diisocyanate (HDI) used in the coating is consumed in a reaction because it is a catalyst. This is consistent with AQD guidance regarding HDI emissions from coatings.

For EUCOATINGLINE03 and EUCOATLINE04, the as applied VOC content of coatings is required to meet the applicable limits in Rule 632, Table 66 for plastic parts coating. According to company records, the daily weighted average for each coating type under Table 66 is being met. The highest daily average was 5.42 lbs/day which is below all applicable limits.

EVALUATION SUMMARY

Based on the inspection and information provided by the company, Lakeland Monroe Group will be sent a Violation Notice for violations identified above. Attached to this report are records necessary to demonstrate compliance.

NAME _____



DATE _____

6/29/2021

SUPERVISOR _____

