

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

N515574537

FACILITY: A & K Finishing, Inc.	SRN / ID: N5155
LOCATION: 4436 DONKER COURT SE, KENTWOOD	DISTRICT: Grand Rapids
CITY: KENTWOOD	COUNTY: KENT
CONTACT: Scott Hankamp , Operations Manager	ACTIVITY DATE: 10/15/2024
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance
SUBJECT: Unannounced, scheduled inspection.	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

Air Quality Division staff, April Lazzaro and Alicia Kusaka arrived at the facility to conduct an unannounced, scheduled inspection of A & K Finishing, Inc. located at 4436 Donker Court SE in Kentwood. The purpose of the inspection was to determine compliance with Permit to Install (PTI) No. 21-07E as well as state and federal air pollution regulations. Accompanying AQD staff was Scott Hankamp, Operations Manager.

FACILITY DESCRIPTION

A & K Finishing, Inc. paints plastic, interior automotive parts and some household products. The facility consists of seven coating lines which are permitted under Opt-out Permit to Install No. 21-07E. The company is considered a synthetic minor source for hazardous air pollutants (HAPs) and volatile organic compounds (VOCs). The company is also subject to Rule 632, plastic parts coating VOC content restrictions. Mild solvent odors were noted in the facility parking lot upon arrival.

COMPLIANCE EVALUATION

This compliance evaluation spans from October 2023-September 2024. Permit to Install 21-07E became effective on July 19, 2022. A PTI revision is currently in house and under review. Upon issuance of the new PTI, the facility will become a major source of VOCs, and will be subject to the Title V Renewable Operating Permit (ROP) program. A & K Finishing will have 12-months following the date of PTI issuance to submit an administratively complete ROP application.

The company has seven plastic parts coating lines. EU-LINE1 has three spray booths, three robotic paint booths, and one infrared drying oven. EU-LINE2 has two robotic spray booths and one infrared oven. EU-LINE3A has one robotic spray booth and an infrared oven that is shared with EU-LINE3B. EU-LINE3B has one robotic spray booth and an infrared oven that is shared with EU-LINE3A. EU-LINE4 consists of two spray booths and one infrared oven. EU-LINE5 consists of three spray booths, and one infrared oven. EU-LINE6 has one spray booth and one infrared oven. The shared stack orientation for the ovens is not correctly identified in the permit. The permit section indicated they will not make the correction during the current permit review process as that line was not requested to be modified.

Paint is applied to plastic parts in all spray booths using Sata LP90, HVLP guns in accordance with the permit. In addition, the filters on all booths were maintained adequately.

The company uses a bar code scanning system to accurately determine the amount of coating that is being distributed out of the mix room.

There have been no changes to stacks since the previous inspection, however the new permit application in house indicates that changes to stacks are needed upon permit issuance.

FG-LINE3

This flexible group includes EU-LINE3A and EU-LINE3B; two plastic parts spray coating lines with dry filters and includes purge and cleanup operations, and limits to exempt the lines from the Rule 632 coating content limits. These booths are not used very often and were not operating at the time of the inspection.

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Reported Emissions	Compliance Y/N
VOC	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EU-LINE3A and EU-LINE3B, each separately	0.33 tons	Y
VOC	2,000 lb/month	12-month rolling time period as determined at the end of each month	EU-LINE3A and EU-LINE3B, each separately	EULINE3A 160.7 lb EULINE3B 0	Y
Tert- Butyl Acetate (CAS No. 540-88-5)	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-LINE3	0.33 tons	Y

The permit is written incorrectly for the monthly limit identified above. The 2,000 lb/month limit is a per month time period, not a 12-month rolling time period. The incorrect limit is currently being addressed through ongoing permit review as an administrative correction.

FG-COAT

This flexible group includes EU-LINE1, EU-LINE2, EU-LINE4, EU-LINE5 and EU-LINE6 which are five automotive plastic parts spray coating lines with dry filters and includes purge and clean up operations. There are some furniture parts that get coated on the lines as well, and the company keeps track of the paint use for them separately if used. The table below depicts limits established in PTI No. 21-07E and associated compliance status.

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Reported Emissions	Compliance Y/N
VOC	87.7 tpy	12-month rolling time period as determined at the end of each calendar month	FGCOAT	39.24 tons	Y
VOC & Acetone (CAS No. 67-64-1) Combined	42.8 tpy	12-month rolling time period as determined at the end of each calendar month	EU-LINE4	25.98	Y
VOC	10.0 tpy	12-month rolling time period as determined at the end of each calendar month	EU-LINE6	Has not operated in more than 12-months	Y
VOC	2,000 lb/month	Calendar month	EU-LINE6	Has not operated in more than 12-months	Y
VOC	5.0 lb/gal (minus water) ^a as applied	Daily volume-weighted average	EU-LINE4	Unknown, the formula in the spreadsheet is incorrect.	N
VOC	R 336.1632 – Table 66, lb/gal (minus water) ^a as applied	Daily volume-weighted average	Individually for EU-LINE1, EU-LINE2, and EU-LINE5	EU-LINE1 EU-LINE2 various EU-LINE5 various	N N Y

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Reported Emissions	Compliance Y/N
cumene (CAS No. 98-82-8)	12.9 lb/yr	12-month rolling time period as determined at the end of each calendar month	EU-LINE4	All 12-month rolling totals in time period evaluated exceed limit	N
hydrocarbons, terpene processing by-products (CAS No. 68956-56-9)	12.9 lb/yr	12-month rolling time period as determined at the end of each calendar month	EU-LINE4	0 lbs	Y
dibasic ester (CAS No. 95481-62-2)	128.6 lb/yr	12-month rolling time period as determined at the end of each calendar month	EU-LINE4	0 lbs	Y

The formula in the recordkeeping for EU-LINE4 does not include usage of the all coatings used each day, and does not correctly calculate the daily volume weighted average. As such, compliance with the 5.0 lb/gal VOC on a daily volume weighted average could not be determined. This is a violation of PTI No. 21-07E, Special Condition No. VI.3.c. A Violation Notice will be sent.

EU-LINE4 is subject to a cumene limit of 12.9 lb/year based on a 12-month rolling average as determined at the end of each calendar month. The recordkeeping provided for EU-LINE4 indicates that the cumene emission limit of 12.9 lb/yr on a 12-month rolling time period was exceeded for the entirety of the time period evaluated. Reported emissions and the compliance status are as follows, based on the month the 12-month rolling time period ended:

Pollutant	Limit	Time period	Equipment	Reported emissions	Compliance Y/N
Cumene	12.9 lb/yr	September 2023	EU-LINE4	31.03	N
Cumene	12.9 lb/yr	October 2023	EU-LINE4	33.15	N

Cumene	12.9 lb/yr	November 2023	EU-LINE4	34.10	N
Cumene	12.9 lb/yr	December 2023	EU-LINE4	34.92	N
Cumene	12.9 lb/yr	January 2024	EU-LINE4	34.26	N
Cumene	12.9 lb/yr	February 2024	EU-LINE4	34.36	N
Cumene	12.9 lb/yr	March 2024	EU-LINE4	34.29	N
Cumene	12.9 lb/yr	April 2024	EU-LINE4	34.62	N
Cumene	12.9 lb/yr	May 2024	EU-LINE4	34.36	N
Cumene	12.9 lb/yr	June 2024	EU-LINE4	33.14	N
Cumene	12.9 lb/yr	July 2024	EU-LINE4	32.45	N
Cumene	12.9 lb/yr	August 2024	EU-LINE4	31.22	N
Cumene	12.9 lb/hr	September 2024	EU-LINE4	29.68	N

A & K Finishing, Inc. has reported zero pounds of emissions from hydrocarbons, terpene processing by-products and dibasic ester which both have emission limits established.

A & K Finishing reported that both EU-LINE1 and EU-LINE2 each had one exceedance of the daily volume weighted average during the time period evaluated. A Violation Notice will be issued.

EU-LINE5 met the daily volume weighted average VOC content limit during the time period evaluated.

EU-LINE6 did not operate during the time period evaluated.

The temperature limit for each IR oven during the use of air dried coatings is 194°F. The IR ovens never exceed 190°F. A&K monitors part temperature as well to ensure quality. One type of part is heated to less than 190°F and another type is less than 160°F. A&K stated that there have been no temperature exceedances for the time

period evaluated. Temperature records were observed during the inspection, and AQD confirmed that records are maintained of part temperatures more than once per shift.

FGFACILITY

FGFACILITY contains the following limits. The associated reported emissions and compliance status are also noted.

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Reported Emissions	Compliance Y/N
Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	1.13 tons Highest reported HAP are glycol ethers	Y
Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	1.91 tons	Y
VOC	Less than 90.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	79.66 tons	Y
VOC	30.0 tpy	12-month rolling time period as determined at the end of each calendar month	All plastic parts coating lines exempted per R 336.1632 (15)(i) in FGFACILITY	EU-LINE3A, EU-LINE3B, EU-LINE6 Combined= 0.33 tons (only EU-LINE3A was operational)	Y

FGFACILITY also contains material limits, the compliance status is noted:

Material	Maximum VOC Content, With Water as Applied, in pounds per gallon	Annual Usage Limit in gallons (with water)	Time Period / Operating Scenario	Equipment	Compliance Y/N
Group 1 Coatings	6.1 - 7.0	8,528	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	N (6 months)
Group 2 Coatings	5.1 - 6.0	1,020	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	N (all 12 months)
Group 3 Coatings	4.1 - 5.0	5,969	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	N (all 12 months)
Group 4 Coatings	3.1 - 4.0	12,768	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	N (all 12 months)
Group 5 Coatings	2.1 – 3.0	1,054	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	N (all 12 months)
Group 6 Coatings	1.1 – 2.0	14,084	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	Y
Group 7 Coatings	0 – 1.0	1,742	12-month rolling time period as determined at	FGFACILITY	N (all 12 months)

Material	Maximum VOC Content, With Water as Applied, in pounds per gallon	Annual Usage Limit in gallons (with water)	Time Period / Operating Scenario	Equipment	Compliance Y/N
			the end of each calendar month		

As noted above, A & K Finishing exceeded the coating material limits in Groups 1, 2, 3, 4, 5 and 7. A Violation Notice will be issued.

Additionally, the facility uses isopropyl alcohol (IPA) to wipe parts prior to coating, however the IPA usage is not identified in the recordkeeping. As such, this is a violation of FGFACILITY, Special Condition No. VI.4 and VI.5.

SUMMARY

A & K Finishing, Inc. was in non-compliance at the time of the inspection. A violation notice will be issued.

NAME April Lazzaro DATE 11/13/2024 SUPERVISOR HH