

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N178630240

FACILITY: Yanfeng Global Automotive Interiors		SRN / ID: N1786
LOCATION: 5050 Kendrick St SE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Andrew Montgomery, Environmental Health and Safety Manager		ACTIVITY DATE: 06/23/2015
STAFF: David Morgan	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

At 9:00 AM on June 17, 2015, Air Quality Division staff Dave Morgan conducted an unannounced scheduled inspection of Yanfeng Global Automotive Interiors (formerly Johnson Controls Interiors Manufacturing) located at 5050 Kendrick in Cascade Township. The purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations as well as Permit to Install No. 222-10B. Accompanying staff on the inspection was Andrew Montgomery the EHS Manager and Ken Harbor assisted with records.

FACILITY DESCRIPTION

Yanfeng Global Automotive Interiors is a Tier II supplier of plastic interior automotive parts. The facility consists of plastic injection molding, finishing, and some assembly. The facility currently operates three shifts per day. This facility is considered a synthetic minor source for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) under PTI No. 222-10B. As of July 1, 2015, Johnson Control Interior Manufacturing became Yanfeng Global Automotive Interiors.

COMPLIANCE EVALUATION

PTI No. 222-10B covers miscellaneous solvent usage, two paint lines (EUPAINTLINE1 and EUPAINTLINE2) as well as facility wide emissions. There are approximately fifty-five plastic injection molding machines exempt from permitting under Rule 286.

FGWIPESOLVENTS:

Isopropyl alcohol (IPA) is used at the facility to remove grease, oils and dirt from parts. This is done either in an enclosed booth at the beginning of the paint line or in small cans located throughout the facility. Wipes or rags are wetted with IPA from a one gallon metal can with a closed lid.

The company is required to capture and store all waste wipe solvent and rags in closed containers and handle in a manner to minimize emissions. All wipes are disposed of in large drums and at the time of the inspection, lids were closed.

Records of wipe solvent usage and emissions are being maintained in accordance with the permit. Emissions are found in the table below.

EUPAINTLINE1:

After parts are cleaned they go through the paint line. EUPAINTLINE1 consists of two automated coating booths equipped with robotic high volume low pressure (HVLP) applicators, a flash tunnel, and one natural gas-fired curing oven. Each booth, the flash tunnel and the oven has its own designated exhaust stack. The company uses both water-based and solvent-based two-component coatings on this line. The mat filters in the spray booths are changed once per shift and appeared to be installed properly in accordance with permit requirements.

Line flush is captured in waste containers in an acceptable manner. According to plant personnel, limited hand spraying is also conducted in the active booths for small jobs such as service parts. When hand spraying is conducted, Devilbiss Compact HVLP guns are used. The company was advised that test caps should be on-site to verify that HVLP guns are operated with a pressure measured at the HVLP gun air cap less than 10 pounds per square inch gauge (psig).

The curing oven was operating at a temperature around 179°F which is below the permit limit of 194 °F. In addition, the company continuously monitors the oven temperature with an electronic temperature gauge and has a associated data logger which satisfies the permit requirement to record the oven temperature at least once per shift.

Coating and VOC recordkeeping are discussed below.

EUPAINTLINE2:

Under PTI No. 222-10B, EUPAINTLINE 2 is described as two automated coating booths equipped with robotic high volume low pressure (HVLP) applicators, a flash tunnel, and one natural gas-fired curing oven. The facility uses the first booth for research and development and uses the second booth as a manual hand spray booth. Applicators consist of Devilbiss Compact HVLP guns. Each booth, the flash tunnel and the oven has its own designated exhaust stack. According to Mr. Montgomery, the company only uses water-based coatings on this line. The mat filters in the spray booths are changed once per shift and appeared to be installed properly in accordance with permit requirements.

Line flush is captured in waste containers in an acceptable manner.

The curing oven was operating at a temperature around 181 °F which is below the permit limit of 194 °F. In addition, the company continuously monitors the oven temperature with a circular chart recorder. It is noted the paper in the chart needed to be changed more often because the pen was writing over previous days of recording. Despite this, the temperature record showed compliance with the limit. The company needs to better operate the temperature recorder.

Coating and VOC recordkeeping will be discussed below.

Recordkeeping:

The company maintains material usage and emission records using Microsoft Access and Excel databases. The company had the following emissions information for June 2014 through May 2015:

EU/FG	Parameter	Limit	Actual	Compliance	Comment
EUPAINTLINE1	VOC	80 tons per 12-month rolling	43.83 tons	Y	
EUPAINTLINE1	VOC	800 lb/day	Unknown	Unknown	No records available. See below.
EUPAINTLINE1	VOC content	5.0 lb/gal daily weighted avg.	Unknown	Unknown	No records available. See below.
EUPAINTLINE2	VOC	20.0 tons per 12-month rolling	8.31 tpy	Y	
EUPAINTLINE2	VOC	3.3 lb/gal daily weighted avg.	<3.3 lbs/gal	Y	Only water-based coatings are used on EUPAINTLINE2. According to company records, water-based coatings are all less than 3.3 lbs/gallon minus water as applied.
FGWIPESOLVENTS	VOC	8.0 tons per 12-month rolling	3.43 tpy	Y	
FGFACILITY	VOC	< 100.0 tpy	55.57 tpy	Y	
FGFACILITY	Individual HAP	< 10.0 tpy	4.28 tpy	Y	
FGFACILITY	Aggregate HAP	<25.0 tpy	5.82 tpy	Y	

The company currently uses manufacturer's data to determine the VOC content of applied coatings. The company was approved to use manufacturer's formulation data in April 2011.

It is noted that for EUPAINTLINE1 the company was not maintaining VOC emission calculations determining the volume-weighted average VOC content for coatings as applied on a calendar day basis. A violation of PTI No. 222-10B, Special Condition No. VI.4.c will be cited. Also for EUPAINTLINE1, the company was not maintaining VOC mass emission calculations determining the daily VOC emission rate in pounds per calendar day. This is a violation of PTI No. 222-10B, Special Condition No. VI.4.d.

For EUPAINTLINE2, the company was not maintaining VOC emission calculations determining the volume-weighted average VOC content for coatings as applied on a calendar day basis which is a violation of PTI No. 222-10B, EUPAINTLINE2, Special Condition No. VI.4.c.

It is noted that the company has already updated their records to account for the recordkeeping deficiencies identified above.

MISCELLANEOUS:

The company has a pad printer which is exempt under Rule 285(l)(ix).

The company has two cold cleaners which are exempt under Rule 281(h). At the time of the inspection, the lids were closed. The company has procedures posted for proper operation. The solvent used in the cold cleaners is lacquer thinner and is also used for general wipe down. This usage is to be counted toward the overall facility VOC emissions.

SUMMARY

Yanfeng Global Automotive Interiors will be sent a violation notice for violations identified above. Attached to this report are records obtained during the inspection.

NAME  DATE 7/16/15 SUPERVISOR 

