

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

A303755186

<b>FACILITY:</b> Global Enterprises		<b>SRN / ID:</b> A3037
<b>LOCATION:</b> 50450 E. Russell Schmidt Dr., CHESTERFIELD		<b>DISTRICT:</b> Warren
<b>CITY:</b> CHESTERFIELD		<b>COUNTY:</b> MACOMB
<b>CONTACT:</b> Jamie Shea , HR Generalist		<b>ACTIVITY DATE:</b> 08/27/2020
<b>STAFF:</b> Sebastian Kallumkal	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Onsite Inspection		
<b>RESOLVED COMPLAINTS:</b>		

On August 27, 2020, I, Sebastian Kallumkal, EGLE – AQD staff, conducted a scheduled inspection at Global Enterprises located at 50450 E. Russell Schmidt Blvd. in Chesterfield Twp., Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, Energy-Air Quality Division (EGLE-AQD) Rules; and PTI 100-14.

Due to 2020 CoVid 19 Pandemic situation, the inspection was already announced. I received records from the facility on August 7, 2020.

I arrived at the facility at about 11:30 AM. In the parking lot, I observed pleasant, solvent smell. I entered the facility and met with Ms. Jamie Shea, HR Generalist. I introduced myself and stated the purpose of the inspection. I filled out facility's health screening form and Jamie took my temperature, per facility's CoVid 19 Pandemic Protocol.

She took me to a conference room for a pre-inspection meeting. There I met Mr. Raul Reyes, Facilities Manager. Per the CoVid 19 Protocol, we were all wearing face masks. They explained facility's operations.

Global Enterprises manufactures seat back and seating components for high end vehicles. They told me they are only using three adhesive coating lines currently: 841A line (EU580L#894-CT-6711-Valpac 23087C adhesive and EU580L#893-Clear spray-Elmer's Glue type). These two booths share the same stack. He told me on 9/15/2020, that these Booths may only do service jobs in the future. EUK2XX#921 has not been used since March 2020. K2XX#921 are parts identifications for the model of car they supply parts to. Currently they are coating parts for VCAR (Cadillac) in this booth. They are going to install two more booths for this VCAR line. They will be using the same adhesive in these booths. They are in the processing getting all the information necessary to install these booths. Raul informed me that two of the permitted coating booths (EUMAXIMA#296, and EUMAXIMA#282) were removed a few years ago. EUABC#920 is still in operation. This booth used water-based adhesive. EUCD4#917 booth is currently located in the R&D section. On 9/17/2020, Raul told me that this booth is used only for prototypes but is not currently operational.

Processes at Global Enterprises include thermoplastic injection molding/extrusion, assembly, die cutting, and forming products such as map pockets, toe kicks, and seat backs for cars. The facility was not operating during end of March to end of May due to CoVid 19 pandemic lockdown. The facility currently operates 7 am to 11 pm; Monday through Friday; employs about 140 people. The coating lines operates from 7:00 am to 3:00 pm.

I inquired about the methods they use to calculate the VOC emissions from the coating processes. They told me that prior to their employments at this facility, someone conducted a correlative study regarding the amount of coating needed for each part by weighing the part before and after coating and counting the number of parts coated in an hour. I asked them if the study accounted for the overspray and VOCs evaporated during the coating process. They were not aware of the details. We discussed about the possibility of weighing/measuring the adhesive used in a certain time period to calculate the usage. He told me that it may not be accurate because they may not finish the tote before it is replaced.

During the post inspection meeting, Raul informed me that they could multiply the amount of adhesive they calculated from the previous study by 2 to account for the solvents volatilized and the overspray. I told him we will keep the calculations as it is for now because I did not want to arbitrarily assign the

amount and also, they may have accounted for these losses during the previous study. During inspection I observed that the overspray is minimal.

I did not experience any solvent odor inside the facility. During the post inspection meeting, I informed them about the odor I experienced in the parking lot earlier. They told me that they had also experienced such odor outside the facility. I informed them AQD investigates odor complaints when complaints are made.

I also informed them to modify the current permit to remove any coating lines that not operating at the facility and to add future coating lines. They agreed to apply for a permit modification.

To minimize the time spent at the facility due to CoVid 19 pandemic inspection procedures, I did not discuss the Rule 201 exempt processes or inspect such processes at the facility. They informed me that other than the changes in the coating booths, no other changes occurred at the facility.

After the pre-inspection meeting, they accompanied me for an inspection of the facility. In the manufacturing area, I observed several plastic injection molding machines, die cutting machines, etc. Raul told me that they have 9 die cutting machines and emissions are vented to the general in-plant area. I observed that these machines are connected by hoses to collect the dust. Previously, AQD had determined that the die cutting presses used to fabricate headliners and door panels from hardboards may to be exempt from the requirement to obtain a permit to install (PTI) requirements per Rule 285(2)(l)(vi).

Some of the parts made using plastic injection molding (poly propylene). The facility has 10 plastic extrusion machines. The emissions are vented to in-plant environment. If the plastic parts do not require to be covered by vinyl or carpet, they are shipped to the customer. The plastic parts attach to the vinyl or carpet using adhesive tapes. In WK line (Chrysler Car) hot melt Z-1 8300 (butane polymer) is melted and bumped to the substrate and the carpet is molded to the part. Plastic extrusion molding and its associated equipment appears to be exempt from PTI requirements pursuant Rule 286(2)(a) and the equipment used for the application of hot melt glue adhesive is exempt from PTI requirements pursuant Rule 287(2)(i). The adhesive spray booths are permitted in PTI 100-14.

We visited the 841 A line (EU#580L893 and EU#580L894). They were spraying adhesives to the parts. The entire inside of these booths were covered in one long piece of filter cloth. They were applying only small amounts of adhesive for each part. I did not observe much overspray. They used an adhesive similar to Elmer's glue in this booth (EU#580L894).

Next, we visited EUK2XX#921 (K2XX) line. This booth hasn't been used for a few months. They used 390B-Contact Cement in this booth. Recently, they started making VCAR parts in this booth. Two more booths going to be installed for this line. Same adhesive would be used in the VCAR parts line. They are finalizing the details of the booths to be installed. They will apply for a permit to install after they finalize the specifications. This line will be using the same stack as the K2XX line.

He told me MAXIMA (EUMAXIMA#296, EUMAXIMA#282) had not been used for about 6 years and were already removed.

In EUABC#920 (CD Line), they are using a water-based adhesive (5334-PPG). This was not used at the time of our inspection. Next, we visited EUCD4#917 (CD4). This was not being used at the time of the inspection. This was moved to R&D room. He told me that the parts coated in this booth are not sold.

In the Research and Development area, there are two saws, a drill press, and a grinder. They were not being used at the time of my inspection. The emissions from these saws, drill press, and grinder appear to be vented to the general plant environment and are, therefore, appear to exempt from PTI requirements pursuant Rule 285(2)(l)(vi)(B).

Safety Kleen company removes the spent solvent from EUPARTSCLEANER and replaces with 8 gallons of new solvent every two months. We visited this parts cleaner. It was kept open during the inspection because parts were being cleaned. The operating procedure required pursuant to Rule 707 was posted in a visible location above the parts cleaner.

In addition to the aforementioned processes, the facility also has a line where label sealing is performed (Merono Line) and a line that heats and presses seat backing (Mercedes Line). On the Merono Line, labels are fixed to parts using high frequency sonic vibrations. On the Mercedes Line a 500,000 Btu/hour, natural gas-fired oven is used to heat bi-component material to 380 - 385 degrees Fahrenheit for about 50 seconds before the material is placed in a press to shape the fabric. No VOCs are used in the heating or pressing process. The bi-component material is purchased completed from an outside manufacturer and no emissions expected from this process. Raul told me that the facility is keeping copies of SDSs from the manufacturer of the bi-component material for all products used to make the bi-component material. The labeling and oven equipment appear to be exempt from Rule 201 requirements pursuant to Rule 285(2)(i) and Rule 281(2)(e) respectively.

#### **PTI 100-14**

Equipment permitted in PTI 100-14 includes the Safety Kleen cold cleaner (EUPARTSCLEANER) and seven adhesive coating lines (FGADHESIVES). PTI 100-14 also includes a facility-wide hazardous air pollutant (HAP) limit.

#### **EUPARTSCLEANER**

EUPARTSCLEANER is used cleaning glue guns, maintenance equipment, and gears. Raul told me that Safety Kleen services this parts washer and fills about 8 gallons of solvents in 2 months.

#### **FGADHESIVES**

FGADHESIVES includes conditions for seven adhesive coating booths (EUMAXIMA#296, EUMAXIMA#282, EUK2XX#921, EUABC#920, EU580L#893, EU580L#894, EUCD4#917). Raul told me that not all of these 7 booths are currently operating, as discussed earlier. Regarding counting the parts coated hourly, Raul told me that the number of parts coated are noted in a shift report to the supervisor daily and the supervisor compiles it.

PTI 100-14 limits the number of parts produced on K2XX to 1,046 parts/day. Monitoring and recording of the number of parts coated per day on K2XX is required in Special Condition (SC) VI.4. The facility provided electronic copies of the 2019-2020 records on August 7<sup>th</sup>. The records include number of parts coated daily, adhesive usage factor for each part, days operated, monthly VOC, Toluene, and Hexane emission calculations (in pounds) for VCAR, K2XX, 841A-, CD 24 booths.

The annual VOC emissions from each booth is limited to 25 tons per year based on 12-month rolling time period and for all booth combined (FG-ADHESIVES) to 28 tons per year based on a 12-month rolling time period.

The 12 month rolling period emissions, as of July 2020, from VCAR was 3 pounds, K2XX was 1783 pounds (highest was 4542 pounds as of February 2019), 841-A was 3776 pounds (highest was 7629 as of February 2019), CD line was 32 pounds (highest was 111 as of January 2019). All lines combined was 2.8 tons as of July 2020 (highest was 6.13 tons as of January 2019).

The VOC content of the coatings are limited to 4.3 lb/gal (minus water), as applied. The technical data sheet/environmental data sheet/safety data sheet information provided indicate that the VOC content of the coatings (adhesives) used are below this limit. Jamie forwarded SDS & TDS for 841-A X23087 Contact Bond Adhesive, CD-T7944 Water and K2XX\_390B Contact Cement on September 2<sup>nd</sup>.

The spent filters are disposed of properly, the coating material containers are kept covered and the waste materials are stored in closed containers to minimize fugitive emissions.

The submitted records includes the number of parts coated on K2XX each day until beginning of August 2020. According to these records the highest amount of parts produced in a day on K2XX was 615 on March 22, 2019.

I observed that the exhaust filters for the booths were installed properly. The facility uses the information from the EDS/TDS to calculate the VOC emissions and keeps a list of SDS for all the adhesives used in the process.

The facility is re required to keep keeps records of gallons (with water) of adhesives used, VOC content (minus water and with water) of each adhesive, as applied, monthly and 12-month rolling period VOC

mass emission calculations in tons for each coating line and all coating lines combined and the hours of operation. The submitted records did not include the monthly coating usage information (calculated) and the hours of operation. Raul told me that they are keeping hours of operation of the booths. Facility's emission limits and calculations do not require this information. However, to correlate the coating usage and the emissions reported, facility will be required to keep records of coating inventory on a monthly basis (coating purchased and inventory) for each coating.

#### FG-FACILITY

This flexible group encompasses all process equipment at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment. All equipment and processes at Global Enterprises are included in FG-FACILITY.

FG-FACILITY limits each individual HAP emissions to 8.9 tpy per 12-month rolling time period as determined at the end of each calendar month and aggregate HAP emissions are limited to 22.4 tpy per 12-month rolling time period as determined at the end of each calendar month. The submitted records show that as of July 2020, the toluene emissions were 1.009 tons (highest was 2.25 tons as of January 2019), hexane emissions were 0.41 tons (highest was 1.02 tons as of January 2019) and aggregate HAP emissions were 1.41 tons (highest was 3.27 tons as of January 2019), based on 12-month rolling time period.

Compliance with the HAP emission limits is demonstrated by using amount of adhesive used per part, number of parts coated daily, and the HAP content of the adhesives. Facility keeps records of monthly and 12-month rolling individual HAP (toluene and hexane), aggregate HAP emissions.

#### CONCLUSION

Based on the facility inspection and records review, facility appears to be compliance with the applicable air quality regulations and requirements of PTI 100-14.

To correlate the coating usage and the emissions reported, facility is required to keep records of coating inventory on a monthly basis (coating purchased and inventory) for each coating.

NAME Sebastian G. Kallumkal

DATE 09/17/2020

SUPERVISOR

Joyce