

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

N203946912

FACILITY: GRUPO ANTOLIN		SRN / ID: N2039
LOCATION: 6300 EUCLID, MARLETTE		DISTRICT: Saginaw Bay
CITY: MARLETTE		COUNTY: SANILAC
CONTACT: Bryan Hill , Environmental Compliance		ACTIVITY DATE: 10/08/2018
STAFF: Matthew Karl	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection to determine compliance with Opt-Out Permit-to-Install (PTI) Nos. 255-03 and 255-03A		
RESOLVED COMPLAINTS:		

**On 10/8/18, I (Matt Karl) conducted a compliance inspection at Grupo Antolin Michigan located at 63000 Euclid Street, Marlette, 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 Environmental Quality, Air Quality Division (MDEQ-AQD) Administrative Rules; Opt-Out Permit-to-Install (PTI) Nos. 255-03 and 255-03A. Mr. Bryan Hill assisted me during the inspection.**

Facility Description:

The facility is an existing automotive headliner manufacturer. The facility operates 3 shifts and employment is roughly the same as at the time of the last inspection (1/28/16), at approximately 380 employees. Processes at the facility include foam production, adhesive mixing, thermoforming of prefabricated substrates and robotic gasket application. Two adhesive coating booths were installed under PTI 255-03A in July 2018.

Site Inspection: 10/8/18

First, I met with Mr. Bryan Hill, who has replaced Ms. Hellen Thompson in the role of environmental compliance manager. Bryan Hill was able to provide me with the onsite records binder, which contained information about the number of parts produced and emissions information by emission unit on a monthly basis from January 2018-September 2018. The emissions being tracked include VOCs and HAPs, of which the main pollutant of concern is methylene diphenyl isocyanate (MDI). Based on my onsite review of these records, they appeared to be in order and below the permit emission limits. A more detailed review will follow in the records review.

I noted and brought it to Bryan Hill's attention that the records for FGADHESIVE, the two adhesive coating booths, had not been incorporated into the onsite records binder. Bryan Hill was able to provide me copies of the safety data sheets (SDS) for BSA-105 MMY, BSA 121-67, and SikaTherm-4120N that are used in the adhesive coating booths, as well as the potential to emit (PTE) calculations used in the permitting process for PTI 255-03A. Bryan Hill informed me that he would update the onsite records binder to include the FGADHESIVE recordkeeping requirements.

I provided Bryan Hill with a records request for PTI 255-03A. A more detailed review will follow in the records review section.

We then proceeded into the production area of the plant to look at the two adhesive coating booths. EUADHESIVE1 is a manual spray booth used to apply water-based adhesives BSA 121-67 and SikaTherm 4120N. I observed that the booth had its filters installed. The booth is equipped with a magnehelic pressure gauge and had a mark at 0.4" WC which indicated when the filters were "dirty" and needed to be replaced. EUADHESIVE2 is a robotic spray booth used to apply adhesive BSA 105 MMY. I observed that the booth had its filters installed. I was informed that the filters were changed on a monthly basis or at greater frequency as needed. Waste from the booths is handled by Safety-Kleen.

Records Review:

On Friday (11/9/18) I received the following records from Bryan Hill via email:

VOC Emissions 18 11 08

**FGPROCESSES:** Compliant

FGPROCESSES consists of the automotive headliner manufacturing processes including foam production, adhesive mixing, thermoforming of prefabricated substrates and robotic gasket application. This flexible group (FG) consists of emission units (EU) EUFOAM, EUGLASUTEC, EUPET and EUEQUIPCLEAN.

**SC VI.1. The permittee shall keep records of the quantity and type of materials used in FGPROCESSES on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month.**

The tab "Emission Units" from the excel workbook "VOC Emissions 18 11 08" contained the following information about each emission unit, including a description of the emission unit, the pollutants emitted from each process and the process variable used in each equation to calculate emissions. I've summarized the information in the table below:

Emission Unit ID	Emission Unit Description	Pollutants Emitted	Process Variable used to Calculate Emissions
EUFOAM	A two part component foam fed to a mixhead for open pouring. The foam buns are cut into board stock for the Glasutec process.	MDI (CAS #101-68-8); PMDI (CAS #9016-87-9)	Surface area (m <sup>2</sup> ) of buns produced minus bottom surface
EUGLASUTEC	Foam board stock is coated with an adhesive, chopped fiberglass, and sandwiched with a fabric, which will form a substrate. The substrate is molded in a thermoset press and trimmed with a water jet trim machine.	MDI (CAS #101-68-8); PMDI (CAS #9016-87-9)	Surface area (m <sup>2</sup> ) of substrate to which adhesive is being applied; surface area (m <sup>2</sup> ) of the edges of the substrate
EUFOAMINPLACE	A robotic arm applies a mixture of Polyol and Isocyanates to form a foam gasket.	MDI (CAS #101-68-8); PMDI (CAS #9016-87-9)	Number of parts produced.
EUPET	A thermoset press that uses recycled polyethylene to make headliners.	VOCs	-
EUEQUIPCLEAN	One electric oven used for cleaning of process equipment.	VOCs	-
EUTHERMO	Headliner production line that thermoforms plastic substrates.	VOCs	Number of parts produced.

The tab "Emission Units" noted the pollutant PMDI (CAS #9016-87-9) was exempt from permit requirements under R 336.1290(2)(a)(ii)(B), because PMDI has an initial threshold screening level (ITSL) of 0.6 micrograms per cubic meter. I think that R 336.1290(2)(a)(ii)(A) fits better, since (B) refers to initial risk screening level (IRSL) not ITSL. Uncontrolled emissions of PMDI are expected to be less than 20 lbs./month. Emissions of PMDI are not included in the HAPs emissions tracking and records.

The tab "Emission Units" noted that EUPET and EUTHERMO were exempt from permit requirements under R 336.1286(2)(d) for "plastic thermoforming equipment." VOC emissions are not being tracked for EUPET but are being tracked and recorded for EUTHERMO.

The tab "Emission Units" noted that EUEQUIPCLEAN was exempt from permit requirements under R 336.1290. This likely refers to R 336.1290(2)(a)(i). Total uncontrolled emissions of air contaminants are expected to be less than 1,000 lbs./month. VOC emissions are not being tracked or recorded for EUEQUIPCLEAN.

**SC VI.2. The permittee shall keep records of the number of headliners produced in FGPROCESSES on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month.**

The excel workbook "VOC Emissions 18 11 08" contained production data from January 2018-October 2018 for FGPROCESSES. I've summarized the production data in the table below:

Month-Year	Emission Unit ID			
	EUFOAM	EUGLASUTEC	EUFOAMINPLACE	EUTHERMO
	No. of Buns (total)	No. of Parts (total)	No. of Parts	No. of Parts (total)
Jan-18	1632	139896	32493	28153
Feb-18	1608	135293	55963	27595
Mar-18	1797	156095	59932	27334
Apr-18	1554	137259	45323	24197
May-18	1346	139073	44449	28508
Jun-18	1524	136125	56765	21943
Jul-18	1096	94940	20253	10482
Aug-18	1735	149923	20198	20110
Sep-18	1995	151301	44803	14287
Oct-18	2156	186579	52516	15704

**SC VI.3. The permittee shall keep records of calculations identifying the quality, nature, and quantity of emissions from FGPROCESSES on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month.**

The excel workbook "VOC Emissions 18 11 08" contained emissions data from January 2018-October 2018 for FGPROCESSES. I've summarized the emissions data in the table below:

Month-Year	Month (lbs)		Year to date (lbs)	
	HAPs (MDI)	VOCs	HAPs (MDI)	VOCs
Jan-18	0.2576	4.27	0.2576	4.27
Feb-18	2.5701	4.18	2.8277	8.45
Mar-18	2.9455	4.14	5.7732	12.60
Apr-18	3.0897	3.67	8.8629	16.26
May-18	2.5713	4.32	11.4342	20.59
Jun-18	2.8533	3.33	14.2875	23.91
Jul-18	1.8333	1.59	16.1208	25.50
Aug-18	2.7708	3.05	18.8916	28.55
Sep-18	3.5713	2.17	22.4629	30.72
Oct-18	2.7406	2.38	25.2035	33.10

Reviewing the emissions data from January 2018-October 2018 for FGPROCESSES, the average monthly HAPs (MDI) and VOC emissions are 2.52 lbs. and 3.31 lbs. respectively. Projecting from October 2018 to the end of the year using the average emissions rate, the yearly totals of HAPs (MDI) and VOC emissions are 0.015 tons and 0.02 tons, respectively.

**FGADHESIVE:** Compliant

FGADHESIVE consists of two adhesive spray booths. EUADHESIVE1 has a hand-held air-atomized sprayer and EUADHESIVE2 has a robotic air-atomized sprayer.

**SC VI.2. The permittee shall maintain a current listing (MSDS) from the manufacturer of the chemical composition of each material, including the weight percent of each component.**

Bryan Hill was able to provide me copies of the safety data sheets (SDS) for BSA-105 MMY, BSA 121-67, and SikaTherm-4120N that are used in the adhesive coating booths during my site inspection on 10/8/18. Copies of the SDS are in the District office files.

**SC VI.3. The permittee shall keep records of VOC and acetone mass emission calculations determining the monthly emission rate in tons per calendar month.**

PTI No. 255-03A was issued on July 3, 2018 to include FGADHESIVE. The excel workbook "VOC Emissions 18 11 08" contained emissions data from July 2018-October 2018 for FGPROCESSES. I've summarized the emissions data in the table below:

Month-Year	Current Month		12 Month Rolling Average	
	VOCs Tons/month	Acetone Tons/month	VOCs Tons/year	Acetone Tons/year
Jul-18	1.18E-02	4.85E-02	0	0
Aug-18	1.59E-02	5.55E-02	1.18E-02	4.85E-02
Sep-18	1.28E-02	5.45E-02	2.78E-02	1.04E-01
Oct-18	1.42E-02	4.85E-02	4.05E-02	1.58E-01

Reviewing the emissions data from July 2018-October 2018 for FGADHESIVE, the average monthly VOC and Acetone emissions are 1.37E-02 tons and 5.17E-02 tons respectively. Projecting using the average emissions rate, the yearly totals of VOC and Acetone emissions are 1.64E-01 tons and 6.21E-01 tons, respectively. The total VOC and Acetone emissions are projected to be well below the emission limit of 14.0 tons per year.

**FGFACILITY:** Compliant

**SC VI.1. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of calculations of the individual HAPs and combined HAPs emissions for FGFACILITY.**

See FGPROCESSES SC VI.3. above for the HAPs emissions data. The facility appears to be well under the HAPs limits of 9 tons/year of any individual HAP and 22.5 tons/year of combined HAPs.

Summary:

At the time of my inspection and records review Grupo Antolin Michigan appeared to be in compliance with Opt-Out Permit-to-Install (PTI) Nos. 255-03 and 255-03A.

NAME Matthew R. Kavel

DATE 11/19/18

SUPERVISOR C. Hare