

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

N003431947

FACILITY: MOLDED PLASTIC INDUSTRIES, INC.		SRN / ID: N0034
LOCATION: 2382 JARCO DR, HOLT		DISTRICT: Lansing
CITY: HOLT		COUNTY: INGHAM
CONTACT: Steve Carlson , Treasurer		ACTIVITY DATE: 10/22/2015
STAFF: Robert Byrnes	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: 2015 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On October 22, 2015 I conducted a compliance evaluation at Molded Plastic (MP) Industries Inc. facility. This inspection was to assess compliance with permit No. MI-ROP-N0034-2013. I arrived in the vicinity of the plant at 2:00 pm to conduct an odor survey prior to meeting with Steven Carlson of (MP).

**Odor Survey:**

Briefly prior to the inspection I conducted an odor survey downwind of MP. I was in the Valhalla Park rear parking lot where I could detect a level 2 (definite and distinct) styrene odor. The odor was intermittent but could easily be detected and identified. There have been no odor complaints in the MACES data base since the AQD began use of this system in 2005.

After the odor survey, I met with Steven Carlon of MP and stated my intent for the site visit. We then toured both buildings within the facility. Molded Plastic is currently operating 1 shift for 5 days per week. The facility uses both closed mold and open molding processes.

**Main Facility**

There were 4 cold mold presses only 2 of them appeared in operation at the time. A fiberglass panel was placed in one part of the mold and some black resin material was spread over the fiberglass. The press then closed with the fiberglass/resin in place where heat and pressure were applied for a certain amount of time. Then the part would be removed from the press and the process would start over again. There were also some cold mold resin processes, a couple closed mold operations and a mini portable press. These operations are exempt under Rule 286(b) as plastic compression and associated plastic resin handling equipment.

EU-SPRAYBOOTHGL1 and FG-COMPOSITESMACT is a spray booth for the application of gel coat on open molds. Mold release is sprayed on molds followed by an application of gel coat. Because the stationary source is major for HAP the spray booth is also subject to MACT WWWW. The following emission rates were verified as found in the August 31, 2015 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June of 2015. All usages and emission rates were below their respective limits as follows:

April 2015	May 2015	June 2015	Emission Limit
48.75 lbs (highest daily usage below hourly limit)	17.98 lbs (highest daily usage below hourly limit)	46.6 lbs (highest daily usage below hourly limit)	63.0 lbs/hr VOC (SC I.1)
.01 tons/mo	.01 tons/mo	.01 tons/mo	1.05 tons VOC per month (SC I.2)
0.16 tpy	0.15 tpy	0.14 tpy	12.6 tons VOC/12 month rolling time period (SC I.3)
195.04 lbs/ton	195.04 lbs/ton	195.04 lbs/ton	377 lbs HAP/ton of resin (SC I.4 and MACT WWWW)
26.6 lbs (highest day total)	21.6 lbs (highest day total)	26.5 lbs (highest day total)	300 pounds gel coat applied per hour (SC II.1)
3,045 lbs/mo	2,904 lbs/mo	2,682 lbs/mo	10,000 pounds gel coat applied per month (SC II.2)
32.85%	32.85%	32.85%	<=35% VOC by weight (SC II.3)

EU-SPRAYBOOTHRS1 and FG-COMPOSITESMACT is a spray booth for the application of resin on open molds and/or glass fibers on open molds. Because the stationary source is major for HAP the spray booth is

also subject to MACT WWWW. The following emission rates were verified as found in the August 31, 2015 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June 2015. All usages and emission rates were below their respective limits as follows:

April 2015	May 2015	June 2015	Emission Limit
Lbs used per month well below hourly limit	Lbs used per month well below hourly limit	Lbs used per month well below hourly limit	30.6 lbs/hr VOC (SC I.1)
515 lbs	602 lbs	597 lbs	1.28 tons VOC per month (SC I.2)
0.17 tpy	0.16 tpy	0.14 tpy	15.4 tons VOC/12 month rolling time period (SC I.3)
73.13 lbs/ton	73.13 lbs/ton	73.13 lbs/ton	88 lbs HAP/ton of resin (SC I.4 and MACT WWWW)
100.6 lbs (highest day total)	76.5 lbs (highest day total)	115.3 lbs (highest day total)	360 pounds resin applied per hour (SC II.1)
9,866 lbs/mo	9,259 lbs/mo	8,474 lbs/mo	30,000 pounds resin applied per month (SC II.2)
33.8%	33.8%	33.8%	<=50% VOC by weight (SC II.3)

FG-Rule 287(c) and FG-MACT PPPP is a plastic parts paint booth. The spray booth is operated as exempt under Rule 287(c). However, because the stationary source is major for HAP the spray booth is also subject to MACT PPPP for plastic parts painting. The facility complies with MACT PPPP using the emission rate without add-on controls option found under 40 CFR 63.4491(b). The coatings they use fall into the general use coating category. The following emission rates were verified as found in the August 31, 2015 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June of 2015. All usages and emission rates were below their respective limits as follows:

April 2015	May 2015	June 2015	Emission Limit
0.14 lbs HAP/lb coating solids	0.14 lbs HAP/lb coating solids	0.14 lbs HAP/lb coating solids	0.16 lbs HAP per lb of coating solids (general use coatings, 40 CFR 63.4490(b) (1))
27 gallons	27 gallons	46 gallons	200 gallons per Month, Rule 287c

There was an assortment of exempt processes throughout the plant. During the site visit I observed the following processes likely being operated as exempt:

- Acetone recovery unit (18 gallon per batch) exempt under Rule 285(u).
- Cutting, sanding, sand blasting, CNC mills, drill presses, plastic shredder and grinding equipment, water jet cutter, exempt under Rule 285(l)(vi)(B) with emissions vented in plant.
- Welding equipment and portable cutting torches exempt under Rule 285(i) and Rule 285(j).
- Curing Ovens used for curing out fiberglass molded parts. There were 2 on site, one was no longer in service. The main unit was a natural gas fired unit with a heat input rate of 1.2 MMBTU/hr, exempt under Rule 285(b)(i) for natural gas fired process heaters under 50 MMBTU/hr.

#### Molded Plastic Across the Street:

Across the street from the main building is another MP facility. At this facility they take sheet plastic and heat it to soften the material. The material then gets put into a mold and is vacuum formed. The processes here appear to be operated as exempt under Rule 286(d) as plastic thermoforming equipment. This facility also had a newer molding operation which is likely exempt under Rule 290. I contacted Bill Hilton at RCSI on October 27, 2015 via phone and requested a Rule 290 demonstration (emission calculations). Steve said he was fine with me contacting Bill for any clarifications needed on the possible R290 VOC records. A copy of the MSDS sheet was obtained during the inspection and is attached to this report. On November 17, 2015 the AQD received a Rule 290 demonstration showing the foam process was exempt from the requirements of Rule 201.

#### Future ROP Renewal:

The renewal application is due on December 17, 2017. A review of the facility showed currently the facility will

need to include Boiler MACT DDDDD for the ovens which accelerate mold curing. An e-mail was sent to Bill Hilton and Steve Carlson on October 28, 2015 making aware the compliance date for Boiler MACT is January 31, 2016.

A Review of previous PTI's included in the ROP was also conducted as shown in the following table:

PTI Number	Process Description	Notes:
960-76	2 Spray Booths	Replaced by PTI 133-90
881-85	1 Paint Booth, dry filters	Replaced by PTI 134-90
133-90	2 Spray Booths	Assumed this replace the 960-76 PTI
134-90	1 Paint Booth	A 4-25-1996 letter from Rhonda M Stokes voided PTI 134-90 as the Paint Booth was operated as exempt under Rule 287(c).
135-90	4 cold molding presses, 2 RTM machines, Miscellaneous Molding	A 4-25-1996 letter from Rhonda M Stokes voided PTI 133-90 as the mold presses were exempt under Rule 286(h). However the FG-Mold Release remains in the ROP but could be considered included in the exemption.
221-94	Tooling, fabrication and storage	PTI application was voided as being exempt under Rule 290. However, this process equipment is better fit under the exemptions found in Rules 285(l)(vi)(B), 285(i), 285(j), 285(b)(i).

After review of previous PTI's, the facility consists of exempt equipment and equipment covered previous PTI 133-90. The facility may desire the have the requirements of FG-Mold Release removed from the ROP at a future date.

**Conclusion:**

Everything at the facility appeared to be in compliance at the end of the inspection. The only question is on the Foam seat process that Bill Hilton is supposed to submit a Rule 290 demonstration. On November 17, 2015 the AQD received a Rule 290 demonstration showing the foam process was exempt from the requirements of Rule 201.

After the inspection, during the review of information and writing of this report; it was discovered that the ovens used to accelerate curing of fiberglass in molds would be subject to Boiler MACT DDDDD. An e-mail was sent to Bill Hilton and Steve Carlson on October 28, 2015 making aware the compliance date for Boiler MACT is January 31, 2016.

NAME *Anthony Spina* DATE 11/23/15 SUPERVISOR *B.M.*