

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

N003443850

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: 03/06/2018
STAFF: Robert Byrnes	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: 2018 Scheduled Inspection.		
RESOLVED COMPLAINTS:		

On March 1, 2018 I went to Molded Plastics (MP) to conduct an unannounced site inspection. I spoke with Steve Carlson who stated they were too busy to accommodate an inspection that day. We both agreed to have the inspection on March 6, 2018 at 2:00 pm. This inspection was to assess compliance with permit No. MI-ROP-N0034-2013. I returned on March 6, 2018 with Kelly Richart to conduct the site inspection. A brief drive in the park near the facility did not produce any odors from the facility. Odors were observed both outside and inside the Molded Plastics facility.

The facility uses both closed mold and open molding processes. There were 7 closed mold presses, 4 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 fiberglass was then placed in the mold press 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.

**MACT WWWW** – The facility is an existing major source of HAP as the resin and gelcoat spray booths were installed in November of 1991 (new source date is August 2, 2001). Table 13 states only an initial notification is required for existing sources. However, the facility does have to send in semi-annual compliance reports as Table 14 of MACT WWWW outlines the typical semi-annual reporting requirements. MACT WWWW 63.5790(c) states: "The following operations are specifically excluded from any requirements in this subpart: application of mold sealing and **release agents; mold stripping and cleaning;** repair of parts that you did not manufacture, including non-routine manufacturing of parts...". Coverage of clean up materials and mold release are covered by FG-Mold Release mentioned below.

**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 September 15, 2017 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June of 2017. All usages and emission rates were below their respective limits except for the styrene content. See Table below:

April 2017	May 2017	June 2017	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)
.009 tons/mo	.02 tons/mo	.01 tons/mo	1.05 tons VOC per month (SC I.2)
0.33 tpy	0.32 tpy	0.28 tpy	12.6 tons VOC/12 month rolling time period (SC I.3)
165.67 lbs/ton	165.67 lbs/ton	165.67 lbs/ton	377 lbs HAP/ton of resin (SC I.4 and MACT WWWW)
Lbs/mo below hourly limit	Lbs/mo below hourly limit	Lbs/mo below hourly limit	300 pounds gel coat applied per hour (SC II.1)
64.9 lbs/mo	262.8 lbs/mo	244.8 lbs/mo	10,000 pounds gel coat applied per month (SC II.2)
36.5%	36.5%	36.5%	<=35% VOC by weight (SC II.3)

A copy of the Gel Booth particulate filter replacements was obtained for January through September 2017. Based upon the records obtained it appears the filters were changed or checked almost every day with an occasional 2 or 3 day period prior to replacement/check.

**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 September 2017 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June of 2017. All usages and emission rates were below their respective limits as follows:

April 2017	May 2017	June 2017	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)
0.086 tons/mo	0.01 tons/mo	0.01 tons/mo	1.28 tons VOC per month (SC I.2)
0.28 tpy	0.27 tpy	0.26 tpy	15.4 tons VOC/12 month rolling time period (SC I.3)
77.15 lbs/ton	77.15 lbs/ton	77.15 lbs/ton	88 lbs HAP/ton of resin (SC I.4 and MACT WWWW)
Due to low lbs/mo, not reviewed	Due to low lbs/mo, not reviewed	Due to low lbs/mo, not reviewed	360 pounds resin applied per hour (SC II.1)
224.5 lbs/mo	492.25 lbs/mo	432.2 lbs/mo	30,000 pounds resin applied per month (SC II.2)
33%	33%	33%	<=50% VOC by weight (SC II.3)

A copy of the Gel Booth particulate filter replacement records was obtained for the January through September 2017. Based upon the records obtained it appears the filters were changed/checked almost every day with an occasional 2 or 3 day period prior to replacement/check.

**FG-Rule 287(c) and FG-MACT PPPP** is for the 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 March 21, 2018 Semi-annual and Annual ROP compliance certifications. The certifications were late due to the need to revised records errors for the resin and gelcoat booths. The data reviewed was for the months of October, November and December of 2017. All usages and emission rates were below their respective limits as follows:

October 2017	November 2017	December 2017	Emission Limit
0.07 lbs HAP/lb coating solids	0.07 lbs HAP/lb coating solids	0.07 lbs HAP/lb coating solids	0.16 lbs HAP per lb of coating solids (general use coatings, 40 CFR 63.4490(b) (1))
43.0 gallons	51.25 gallons	48.5 gallons	200 gallons per month, Rule 287c

**FG-Mold Release** is a Flexible Group for the use of mold release for molding and acetone usage for cleanup of molds. The following emission rates were verified as found in the March 21, 2018 Semi-annual and Annual ROP compliance certifications. The data reviewed was for the months of April, May and June of 2016. All usages and emission rates were below their respective limits as follows:

October 2017	November 2017	December 2017	Emission Limit
0.38 tons/month	0.24 tons/month	0.48 tons/month	1.35 tons per month Acetone (SC I.1)
7.01 tpy	6.66 tpy	6.55 tpy	16.2 tons Acetone/12 month rolling time period (SC I.2)
0.25 tons	0.14 tons	0.26 tons	0.34 tons VOC/month

1.50 tpy	1.51 tpy	1.51 tpy	(SC I.3) 4.1 tons VOC/12 month rolling time period (SC I.4)
772.91 lbs	492.00 lbs	974.03 lbs	2700 lbs Acetone/month (SC II.1)
60.5 gallons	30.25 gallons	66.0 gallons	69 gallons Mold Release per month (SC II.2)

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

Acetone recovery unit (30 gallon) 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).

Across the street from the main building is another MP facility which was also inspected this time. Steve Carlson confirmed there were no new processes or changes since the last inspection. This facility takes sheet plastic and heats 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. Per previous discussions with Steve Carlson, the facility does not have any emergency generators or heat sources which use natural gas. The plastic vacuum forming process uses electricity to heat the plastic parts.

MACT VVV – Review of the federal standard for Boat Manufacturing was reviewed. Per 63.5683 Molded Plastic Industries is not a boat manufacturing facility. Further 63.5683(b) states that facilities which only manufactures boat parts (such as hatches, seats, or lockers) or boat trailers is not considered a boat manufacturing facility for the purposes of subpart VVVV. Molded Plastic has historically produced fenders for an amphibious All Terrain Vehicle (ATV) which could travel on both land and float/drive in water. Because they only produced the fenders (a part) they would not be subject to MACT VVVV.

After the site tour was concluded, I followed up with an e-mail requesting the following:

- Copy of the Resin MSDS for: Resin #2036-E, Styrene.
- Copy of the Gel Coat MSDS for: Black Barrier Coat, Black Gel Coat Schulman, Bueler Cream Gelcoat, Classic Yellow Gel, Old Yellow Gel.
- Copy of the MSDS for the paints: Sherwin 7152-8753 white polan, Akzo Nobel 483255 Dark Grey P.
- Copy of the mold release usages for all of 2017 and through the current year 2018.
- Copy of the most recent filter records for the Gel spraybooth.
- Copy of the most recent filter records for the Resin spraybooth.

Based upon the review of the latest ROP Certifications, visiting the site to conduct an inspection, Additional information received on March 7<sup>th</sup>, 20<sup>th</sup> and 28<sup>th</sup> of 2018 from Bill Hilton, the facility needs to obtain a new PTI and address the following items listed below:

- Exceeded Gelcoat 35% by weight VOC limit, EU-SPRAYBOOTHGL1, SC II.3. The facility was also warned about this after a 5/8/14 inspection and mentioned in telephone notes for a 4/7/15 conversation.
- VOC Records show less VOC/month emitted than HAP emitted per month.
- Addition of new cleaner material is a meaningful change under our new definition.
- Bill Hilton stated the semi-annual/annual reporting would be late on 3/14/18. This was due to the need to recalculate facility emissions due to press parts which then get gel coated were not properly accounted for in the material usages.

If the facility does not submit a PTI application within 2 months as requested on April 4, 2018, A violation notice will be sent for exceeding the Gelcoat VOC content limit. A pre-application meeting was held on April 4, 2018 with Steve Carlson, Bill Hilton, Dave Thompson and Jeff Khaled. Discussions included information to be submitted for a compete PTI application. A copy of the information requested via e-mail from Jeff Kahled is attached to this report. The ROP Renewal is currently under review and a working draft had been sent to the company for comment on February 16th, 2018. However, due to the substantial changes that will likely occur to the permit it has been decided to delay the renewal until the issuance of a revised PTI.

NAME Robert Byers

DATE 4/13/18

SUPERVISOR B.M.