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

N743828688

| | | |
|---|---|---|
| **FACILITY:** PLAST-O-FOAM LLC | | **SRN / ID:** N7438 |
| **LOCATION:** 24601 CAPITAL BLVD, CLINTON TWP | | **DISTRICT:** Southeast Michigan |
| **CITY:** CLINTON TWP | | **COUNTY:** MACOMB |
| **CONTACT:** Jeremy Tom , Quality & Environmental Manager | | **ACTIVITY DATE:** 02/24/2015 |
| **STAFF:** Sebastian Kallumkal | **COMPLIANCE STATUS:** Compliance | **SOURCE CLASS:** SM OPT OUT |
| **SUBJECT:** Onsite Inspection | | |
| **RESOLVED COMPLAINTS:** | | |

**On Tuesday, February 24, 2015, I conducted an annual inspection at the Plasto-O-Foam, LLC., located 24601 Capital Boulevard, Clinton Township, Michigan. The purpose of the inspection was to verify facility's compliance with requirements of Article II, Air Pollution Control, Part 55 of Act 451 of 1994 and Permit to Install (PTI) No. 87-05. This is an opt-out permit to limit the emission rate of hazardous air pollutants (HAP) to below the major source thresholds. On February 17, 2015, AQD received a PTI void request from the facility because its emissions are low and had removed many molding equipment which was included in the PTI No. 87-05.**

**I arrived at the facility about 10:45 AM. I met Mr. Jeremy Tom, Quality & Environmental Manager. I introduced myself, stated the purpose of the visit and provided my credentials and "DEQ Environmental Inspections-Right & Responsibilities" publication.**

**During the pre-inspection meeting we discussed the processes at the facility. This facility currently has 5 injection molding machines which use BMC (bulk molding compound) and 5 plastic injection molding machines. 3 of the 5 BMC molding machines are not used. 7 thermoset injection molding presses included in the FGTHERMOSETMOLDS and EUCOMPRESSION3 and EUCOMPRESSION7 have been removed from the facility. Thermoplastic injection molding presses are exempt from Permit To Install requirements pursuant to Rule 286(b). The injection molding presses are of different sizes (small, medium and large).**

**Next, we discussed the PTI void request he sent to AQD (received on February 17, 2015). In the submittal, he compared the emissions based on PTE submitted during PTI application and actual emissions to the current PTE and actual emissions. I informed him that the PTI cannot be voided because the Rule 286 exemption does not apply to parts molding using bulk molding compounds (BMC) which contains monomers (such as styrene, vinyl chloride, etc.). Rule 286(b) exemptions are for injection molding using plastic materials which are polymers. Furthermore, the facility cannot use Rule 290 exemption because actual styrene emissions, a carcinogen, are more than the Rule 290 emission limit which is 20 lb per month (uncontrolled). So the facility needs to keep the PTI. He agreed to keep the PTI for operational flexibility.**

**He also explained that the emission limits are expressed on a 12-month rolling time period which are difficult to calculate based on the calculation format they are using. He requested AQD approval for complying with the emission limits by calculating the emissions on a calendar year basis. After discussing with District Supervisor, it was decided that the facility should calculate the 12-month rolling emission limit to show compliance with the permit limit.**

**After the pre-inspection meeting, Mr. Tom accompanied me for an inspection of the facility. We inspected the BMC molding equipment and the plastic injection molding equipment. In the compression molding the bulk molding compound is placed in the press and then molded into the desired parts. The facility manufactures various parts such as, electrical insulators, circuit breaker parts, automotive bumpers, parts for medical industry, etc. It has about 74 employees and operates 24 hours per day and 5-7 days per week.**

**During the post-inspection meeting he showed me all the emissions records (spreadsheets) and offered to**

**send it to me via email.**

**Inspection: PTI NO. 87-05**

**EUCLEANUP**

**Mr. Tom told me that they are not using any cleanup solvents in the molds.**

**FGCOMPMOLDS**

**Condition 2.1a and 2.1b limit the VOC emissions to 17.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month and ammonia emissions to 2.3 TPY based on a 12-month rolling time period as determined at the end of each calendar month. Mr. Tom told me that they are not using ammonia in the process. The annual VOC emissions were 0.05 Tons per year in 2014. This is in compliance with the emission limit.**

**Condition 2.2 requires that permittee shall uncover, unwrap or expose only one charge per mold cycle per compression or injection molding machine used in FGCOMPMOLDS. I observed that facility complies with this requirement. The material for each charge is taken from a bag and the bag is closed after taking out each charge. The operator takes one charge resin each time and puts in the compression mold press to make each part.**

**Condition 2.3 prohibits the use of any cleaning solvents in FGCOMPMOLDS which contain HAP except that styrene may be used in closed loop systems. Mr. Tom told me that they are not using any cleaning solvents in the molds. The molds are cleaned using air jet. I did not observe operators cleaning the molds using any cleaning solvents.**

**Conditions 2.2 and 2.3 are part of a set of work practice standards required in the 40 CFR Part 63, Subpart WWWW- for Reinforced Plastic Composites (RPC) Production. Facility is not subject to this MACT standard because it is an opt-out source for MACT standards. How ever, the facility agreed to comply with these standards in order to demonstrate compliance with MDEQ's T-BACT requirements.**

**Condition 2.4 requires that all required calculations be completed in a format acceptable the AQD district supervisor and made available by the 15 of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition. Facility is keeping adequate records timely.**

**Condition 2.5 requires that permittee shall keep, on a monthly basis, records of identity and amount of each Bulk Molding Compounds (BMC) or Phenolic Molding Compounds (PMC) used, appropriate emission factor (EF) and citation of the source for the EF for each material used, and VOC emission calculations (in tons per month and tons per 12 month rolling) and Ammonia emission calculations (in tons per month and tons per 12 month rolling). The facility is keeping adequate electronic records. Facility is keeping BMC material usage on a monthly basis. The facility is not using any PMC in molding.**

**Condition 2.6a, 2.6b, and 2.6c specify the stack dimensions. The stack dimensions were not verified at the time of the inspection.**

**FGTHERMSETMOLDS**

**Mr. Tom told me that all Thermoset Molds were removed from the facility. I did not observe any**

**thermoset molding equipment during my inspection.**

**FGMOLDING**

**Condition 4.1a limits the Vinyl Toluene emission rates to 25.2 lb/day based on a calendar day. The records show that VT emissions are less than 5 pounds per day**

**Condition 4.2 requires that the facility shall capture and store all waste materials used in FGMOLDING in closed containers and disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations. Mr. Tom informed me that they are in compliance with this requirement.**

**Condition 4.3 requires that all required calculations be completed in a format acceptable the AQD district supervisor and made available by the 15 of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition. Facility is keeping adequate records timely.**

**Condition 4.4 requires that the facility shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The facility is keeping MSDS for all material used in the processes.**

**Condition 4.5 requires that the permittee shall keep, on a calendar day basis, for FGMOLDING, records of identity and amount of each material used, vinyl toluene content of each material used, appropriate emission factor (EF) and citation of source for the EF for each material used, and Vinyl toluene emission calculations determining the daily emission rate in pounds per calendar day. Facility is keeping BMC material usage on a monthly basis.**

**FGFACILITY**

**Conditions 5.1a and 5.1b limit the individual and aggregate HAP emissions to less than 9.0 tons and 22.5 tons respectively, based on a 12-month rolling time period as determined at the end of each calendar month. The single HAP emissions and aggregate HAP emissions are below the emission limits. Facility's aggregate HAP emissions are about 0.04 tons per year.**

**Condition 5.2 requires the facility to determine HAP content of each material used, as received and as applied, using manufacturer's formulation data. The facility uses MSDS to determine the HAP content of the materials.**

**Condition 5.3 requires that all required calculations be completed in a format acceptable the AQD district supervisor and made available by the 15 of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition. Facility is keeping adequate records timely.**

**Condition 5.4 requires that the permittee shall keep, on a monthly basis, for FGFACILITY, records of amount of HAP containing materials used and reclaimed, HAP content of HAP containing material used, and individual and aggregate HAP emission calculations determining monthly and 12-month rolling annual emission rates. The facility is keeping adequate records.**

**Conclusion: Facility appears to be in compliance with all applicable requirements.**

NAME S. Kallumkal DATE 4/10/15 SUPERVISOR CJE