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

N510141182

FACILITY: USM Acquisition, LLC		**SRN / ID:** N5101
LOCATION: 7389 COSTABELLA RD, REMUS		**DISTRICT:** Grand Rapids
CITY: REMUS		**COUNTY:** MECOSTA
CONTACT: Monica Roethlisberger , Vice President		**ACTIVITY DATE:** 08/08/2017
STAFF: Adam Shaffer	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled, unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) and Eric Grinstern (EG) arrived at the facility the morning of August 8, 2017 to conduct an unannounced, scheduled inspection. The purpose of this inspection was to determine compliance with applicable air quality rules and regulations.

Prior to the inspection, all available files regarding USM Acquisitions (USM) were reviewed to determine if any additional federal regulations/requirements were applicable to the facility. The company is subject to 40 CFR Part 63, Subpart WWWW National Emission Standards for Hazardous Air Pollutants (NESHAP): Reinforced Plastic Composites Production. The applicable requirements will be discussed throughout the remainder of this report in further detail.

Prior to entering the facility, odor and visible emission observations were completed. No visible emissions were identified and a slight styrene odor was identified along the eastern property boundary of the site; however, no odor complaints have been received by the AQD from surrounding properties.

AQD staff initially met with Ms. Monica Roethlisberger, Vice President. The purpose of this inspection was briefly discussed. Following the initial discussion, a facility walk through and final discussion at the end of the inspection was completed. Mr. Rick Foster, President and "Tom", Production Manager, assisted in the facility walk. Most of the records needed to verify USM's compliance were provided by Ms. Roethlisberger at the end of the facility inspection via flash drive. Ms. Stephanie Jarrett, consultant with FTC&H, assisted AQD staff AS by providing additional records and answering select questions following the facility inspection.

Facility Description

USM is a manufacturer of cultured marble, onyx and granite vanity tops for areas including kitchens and bathrooms. The facility is in operation under Title V Permit No. MI-ROP-N5101-2013b. Ms. Roethlisberger mentioned in the initial discussion that other than the changes which have been addressed and implemented into the ROP, no other significant changes have occurred on site.

Compliance Evaluation

Prior to the site inspection, semiannual and annual compliance reports, which are submitted by USM identifying any potential deviations per Part A General Conditions 19-24 of MI-ROP-N5101-2013b, were reviewed since the last inspection in 2015. No deviations were identified, and all reports were submitted on time.

Source Wide Conditions

USM is subject to a source wide styrene emission limit of 55.1 tons per year (tpy). Per attached records provided by Ms. Roethlisberger, the 12-month rolling total styrene emissions as of June 2017 were 38.93 tpy, which is well within the permitted limit. Per Special Conditions (SC) VI.3.a-e, USM must keep monthly records of gallons or pounds of each styrene containing material, reclaim of each styrene containing material, styrene content for each material used, and styrene monthly/12-month rolling total emissions. After reviewing the records provided it was concluded that USM is adequately keeping track of each styrene material used, content, monthly and 12-month rolling total emissions. No reclaim of styrene containing materials is completed by USM. Since no significant changes appear to have occurred to the property since the 2015 inspection, no land use change notifications have been submitted.

EUCASTING

This emission unit includes the Respecta casting machine, as well as "backpour" (manual pouring) process equipment used for closed molding processes. Paste wax and/or mold release is also used. Most colors of

castings produced are done by the Respecta casting machine. However, some colors must be manually mixed, and therefore, two mixing stations were observed adjacent to the Respecta machine. Vents to capture particulate emissions from the mixing containers were observed adjacent to the mixing station. USM staff stated during the inspection the vents are connected to the easternmost baghouse on site. Two open mix containers were observed in operation during the inspection. The size of the containers was brought up with Ms. Jarrett, and verified to be 314 square inches. This meets the requirements of 40 CFR Part 63 Subpart WWWW, Table 4 – Work Practice Standards, footnote 1, which allow containers with a surface area of 500 square inches or less to be open while active mixing is taking place.

This emission unit is limited to an instantaneous limit for shipments of resin received of 37.0% volatile organic compounds (VOCs) by weight. For the month of June 2017 the highest VOC content was 31.8%. Records reviewed since June 2016 concluded that the VOC content for all resin shipments received is within the permitted limit.

EUCLEANUP

This emission unit is for all miscellaneous clean-up activities. Enclosed cleaning stations/containers (i.e. Marble Matic's) are used for the cleaning process, and other VOC containing solvents used throughout the facility. Three Marble Matic's were observed on site and are used to clean the mixing containers of resin materials. A side reservoir was observed for each Marble Matic that was used for cleaning hand tools. During the inspection, the reservoirs for each of these Marble Matics were observed being open; though were not in use. AQD staff advised USM staff to keep the lids of the reservoirs closed to limit fugitive emissions. During cleaning of the mixing containers, each Marble Matic is entirely enclosed with latches used to prevent the door from opening during the cleaning process. The three Marble Matic's appeared to be in satisfactory condition with no cracks, holes or other defects observed. USM staff stated that the Respecta machine and closed 5-gallon containers for cleaning cured resin from application equipment were the only areas that utilized the methylene chloride cleaning material. With regards to the Respecta machine, cleaning operations with the methylene chloride are completed internally within the machine. The 5-gallon containers, per 40 CFR Part 63 Subpart WWWW, Table 4 – Work Practice Standards, are to remain closed except when adding or removing materials. Superflush is used for the Marble Matic cleaning machines and general cleaning operations. Waste cleaning solvent is stored in 55-gallon containers and stored on site prior to being picked up and removed off site by Superior.

Per Special Condition (SC).VI.3.a-e, USM shall keep monthly records of the identity of each clean-up solvent used, usage rates, solvent reclaim, monthly cover inspections, and monthly/12-month rolling totals of dibasic ester (CAS No. 95481-62-2) containing materials used. Records were provided and reviewed since June 2016. The only two cleaning solvents used by USM since June 2016 were Superflush and methylene chloride. After an initial review of the records provided, several months were identified with no recorded cleaning material usage. This was brought up with USM staff to verify if correct. It was concluded to be incorrect by USM staff and several months of correct usage records were provided.

After further review, no reclaim of cleaning materials was identified in the records reviewed. Monthly cover inspections of the three Marble Matics were reviewed and concluded to be satisfactory. The Superflush cleaning material used by USM contains dibasic ester. The monthly total of Superflush used outside the Marble Matics for the month of June 2017 was five gallons and the 12-month rolling total as of June 2017 was 26 gallons. Based on previous records reviewed, USM appears to be in compliance.

FGPLASTICCOMP

This flexible group includes EUCASTING, EUGELCOAT, and EUCLEANUP.

The 12-month rolling total of VOCs (including styrene) is limited to 65.1 tpy. As of June 2017, the 12-month rolling total was 40.33 tpy which is well within the permitted limit. Records back to June 2016 concluded that USM is in compliance. Emission limits for each gelcoat and resin used by USM are listed in SC.I.2-8. These emission limits are part of 40 CFR Part 63 Subpart WWWW requirements. USM utilizes the compliant material option for compliance with 40 CFR Part 63 Subpart WWWW. Records back to June 2016 were reviewed for emission limits identified in SC.I.2-5. Upon initial review, an exceedance for the month of September 2016 of the emission limit for Organic HAP from Open Molding – White/Off White Gelcoat was identified at 280 lbs/ton with a permit limit of 267 lbs/ton. After speaking with Ms. Jarrett, it was concluded that this was incorrectly submitted for a different area and should have been 267 lbs/ton. This change was noted in the resubmitted records by Ms. Jarrett. The Organic HAP from Open Molding – High Performance Gelcoat identified in SC.I.4 has not been in use since at least January 2014 and this was verified in the records received.

The emission limits identified in SC.I.6-8 were initially stated by Ms. Jarrett to fall under research and development purposes, and, therefore, exempt from NESHAP requirements. After reviewing the definition of Research and Development defined in section 112(c)(7) of the Clean Air Act, it was concluded that the processes conducted at the facility do not meet the definition of research and development. This was stated to Ms. Jarrett and agreed upon. Additional records were provided and reviewed for SC.I.6-8. It appears that USM is in compliance with all emission limits for FGPLASTICCOMP.

Additionally, USM is subject to several material limits for FGPLASTICCOMP. The highest VOC content for each shipment of gelcoats and resins was reviewed back to June 2016 and compared to the limits listed above. Except for the Kitchen Gelcoat (High Performance), the remaining materials listed above are still in use. The highest monthly VOC content meets the limits listed above for each gelcoat and resin identified; therefore, USM appears to be in compliance.

The two cleaning materials that are used by USM are the Superflush cleaning material and the methylene chloride. The methylene chloride as previously mentioned is only used in the respecta machine on site and closed 5-gallon containers for cleaning cured resin from application equipment. The Superflush cleaning material is used for all other cleaning activities. A Material Safety Data Sheet (MSDS) was requested for the Superflush cleaning product and verified to contain no HAPs.

During the inspection, unattended open containers of HAP containing materials were observed throughout the facility. Per 40 CFR Part 63 Subpart WWWW work practice standards identified in Table 4 and MI-ROP-N5101-2013b, FGPLASTICCOMP, SC.III.2, containers of HAP containing materials must be closed or covered except during the addition or removal of materials. It was concluded that based on the unattended open containers observed this is a violation of 40 CFR Part 63 Subpart WWWW and MI-ROP-N5101-2013b, FGPLASTICCOMP, SC.III.2.

Mixing operations were observed adjacent to the three booth areas (clear and solid application, granite application, and mold making) consisting of 55-gallon containers. The mixing covers over each 55-gallon container appeared to be sealed except for gaps around the mixer shaft areas which also appeared to be 1-inch or less. USM staff stated no venting is done for the stored materials except during the actual application of the materials in the spray booth.

During the inspection three dry filter spray booths (clear and solid application, granite application and mold making) were observed in operation. Air gaps in the filters were identified for the clear and solid application and granite application spray booths. AQD staff advised USM staff on making sure there are no air gaps to capture all potential particulate emissions during operation. USM staff also mentioned that there are two sets of filters in place for each spray booth, which are an outer filter to catch the larger solids and an inner andreae filter. The outer filters are replaced as needed and the inner andreae filters are replaced twice a month.

Per SC.V.1 the HAP content of all resins and gelcoats received and applied will be determined using manufacturers formulation data sheets or MSDS. Additionally, per SC.V.2, the VOC content of all resins, gelcoats, catalysts, mold releases and cleanup solvents must be determined using manufacturers formulation data sheets. Various records and supporting documents were provided to verify VOC/HAP content. The records were considered acceptable and USM appeared to be in compliance.

USM is keeping adequate records of HAP/VOC content of each shipment for all resins and gelcoats received. Per SC.VI.4.a-d USM must keep records of the identity and amount (in pounds or tons) or each material used, the VOC content, the appropriate emissions factors for each raw material used, and monthly/12 month rolling total VOC emissions. As stated previously in EUCLEANUP regarding monthly usage rates for each solvent, several months of records were identified with no solvent usage. When made aware to USM, correct usage records for several months were provided. However, it appears that additional months are incorrect as well. AQD staff AS requested that correct records from June 2016 through June 2017 be submitted for each cleanup solvent material used. USM shall include the requested records in their response to the violation notice (VN) the company will be receiving.

Based on the remaining records received, USM is keeping adequate records of the remaining material usage rates, VOC contents, emission factors and total emissions.

Per SC.VI.5-7 USM must keep records demonstrating that EUGELCOAT meets the organic HAP emission factors listed in Table 3 of 40 CFR Part 63, Subpart WWWW. As stated previously, USM selected the compliant material option to verify compliance. AQD staff AS concluded that based on the records provided, USM appears to be in compliance with the HAP emission factors listed in Table 3 of 40 CFR Part 63, Subpart WWWW.

Except for items previously mentioned, USM appears to be in compliance with all remaining items regarding 40 CFR Part 63, Subpart WWWW.

Three stacks are listed in association with this flexible group. Though the exact dimensions were not measured, they appeared to be consistent with MI-ROP-N5101-2013b.

Additional Observations

- A sanding area was observed where all damaged molds are sent to be repaired before being sent back to the production line. Operations within that area included sanding and buffing of molds. All equipment observed in that area appears to be exempt per Rule 285(2)(l)(vi)(B).

- A curing tunnel which is used to dry gel coating operation products was observed. The tunnel is run by two 184,000 Btu/hr natural gas boilers for a total of 368,000 Btu/hr. The boilers appear to be exempt per Rule 282(2)(b)(i). However, USM is a major source for HAPs; and therefore, potentially subject to 40 CFR Part 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. In a telephone conversation between AQD staff AS and Ms. Jarrett, it was concluded that the two boilers on site are considered by USM to be hot water heaters; therefore, are exempt per this standard.

- In the patching station of the molds, a catalyst and pigment are mixed up in small containers and applied. It was stated by Ms. Jarrett that gelcoat used for manual repair is obtained from the gelcoat spray booth. Gelcoat usages from this area are tracked and emissions are calculated based on the spray application emission factors.

- A finishing area was observed where grinding, sanding, and finishing operations are completed. Six Torit dust collector machines and one AER dust collector machine are used to collect particulate matter (PM) generated from operations in this area except for the grinding and cutting station, and the wipe out sander. The Torit and AER dust collector machines collect PM, vent internally, and are cleaned out every couple of weeks. All sanding equipment that is connected to the Tori and AER machines appear to be exempt per Rule 285(2)(l)(vi)(B).

- The grinding and cutting station observed in the finishing area are connected to the easternmost dust collector and cyclone observed on site. Small amounts of PM were observed surrounding the dust collector. The tote containers that collects PM at the bottom of the dust collector was set up in a way that would allow particulate to escape. This was later discussed with Ms. Roethlisberger and Mr. Foster and recommended to attach in a way to prevent PM from escaping the tote containers. The grinding and cutting stations appear to be exempt per Rule 285(2)(l)(vi)(C).

- One 40,000-gallon tank containing resin was observed along the exterior portions of the facility. This tank appears to be exempt per Rule 286(2)(a).

- An enclosed baghouse called the "dust room" was observed adjacent to the finishing area and collects PM emissions from the wipe out sander. The dust room is then emptied manually once a week. During the inspection around the outside of the dust room a large amount of white PM was observed. USM was concluded to not adequately be containing PM during disposal to prevent it from being released into the outer air. This is a violation per Rule 370(1).

- A solid surface department was observed during the inspection. Located in the solid surface department were various saws and sanders. Four Torit dust collectors were observed in this area that are vented internally and appear to be exempt per Rule 285(2)(l)(vi)(B).

- One dust collector was observed outside the solid surface department area building. Four 55-gallon containers were observed to collect PM from the dust collector and are changed weekly. The saws and sanding equipment connected to the baghouse appear to be exempt per Rule 285(2)(l)(vi)(C).

- During the inspection of the solid surface department spray cans were observed being used that appear to be exempt per Rule 287(2)(b).

- A chemical storage area was observed during the inspection that was used to store all waste resins, clear coats, super flush cleaning material, etc. All containers were properly enclosed.

- One Auto V machine used for cutting and splitting materials was observed and verified to not be in operation. Additionally, emissions from this machine are self-contained.

Conclusion

A final discussion was completed with AQD staff and USM staff. Based on the review of the records provided and the facility walk through, USM is not in compliance with MI-ROP-N5101-2013b and 40 CFR Part 63 Subpart WWWW. A VN will be sent for the following items.

1. Unattended open containers of HAP containing materials observed throughout the facility during the inspection.

2. PM observed adjacent to the dust room from the result of improper handling of collected air contaminants.

NAME Adam F. Shaffer DATE 09/29/17 SUPERVISOR