

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N510159733

FACILITY: AGCO, INC		SRN / ID: N5101
LOCATION: 7389 COSTABELLA RD, REMUS		DISTRICT: Grand Rapids
CITY: REMUS		COUNTY: MECOSTA
CONTACT: Larry Pulliam , President		ACTIVITY DATE: 08/12/2021
STAFF: Scott Evans	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: On site air quality compliance inspection. Baghouse maintenance violation notice issued.		
RESOLVED COMPLAINTS:		

Introduction

On Thursday, August 12, 2021 State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) staff members Scott Evans (SE) and Chris Robinson conducted an air quality inspection of the AGCO facility located at 7389 Costabella Road in Remus, Michigan to assess compliance with air quality regulations. This inspection was an unannounced, on-site inspection.

AGCO is a manufacturer of marble products such as kitchen and bathroom fixtures. Resins and gelcoats are used with limestone to create countertops in varying styles and colors. The facility also manufactures fiberglass forms for on site use. The facility is classified as a major source facility due to its potential to emit for Styrene, a hazardous air pollutant (HAP) exceeds 10 tons per year (tpy). The facility has one active Renewable Operating Permit (ROP): MI-ROP-N5101-2018a.

On the day of the inspection, SE observed no odors or visible emissions originating from the facility during an viewing of the perimeter of the facility. When SE and CR entered the facility, they were greeted by Eddie Brown (EB). After a brief discussion of the purpose of the visit, an inspection of the facility was conducted. During the inspection, all permitted equipment was viewed as well as all exempt equipment. The inspection included inspection of all outdoor areas as well as a viewing of the roof to check for signs of particulate matter. All records reviews were conducted remotely at a later date, as is discussed below. A copy of all records is included with this report.

MI-ROP-N5101-2018a

This ROP renewal was first approved in August of 2018 and revised in May of 2020. It covers three emission units and one flexible group.

Source Wide Conditions

The facility has one emission limit that is applied source wide: 55.1 tpy of Styrene on a 12-month rolling annual time period. As discussed below, records maintained by the facility demonstrate compliance with this requirement.

The facility is required to keep the following records for all processes source wide:

- The facility shall keep a list including Material Safety Data Sheets (MSDS) information of all materials used in production.
- Monthly records of the following:
 - Amount of each styrene containing material used.

- Amount of styrene containing material reclaimed (if applicable).
- Styrene content of each material used.
- Monthly Styrene emissions.
- 12-month rolling annual styrene emissions.

During the inspection, lists and MSDSs of all materials used were briefly reviewed and confirmed to be maintained as required. After the inspection, records were provided remotely that confirmed monthly use of styrene-containing materials is recorded. The facility does not reclaim any styrene containing materials. Information regarding styrene content of materials used is included in the reviewed MSDSs. The below emission data was provided:

- Highest monthly styrene emissions were 1317.97 lbs. (.66 tons) emitted in July 2021.
- Highest annual styrene emissions were 11,651.77 lbs. (5.83 tons) emitted from August 2020 through July 2021.

As demonstrated by the records, the facility was in compliance with the source-wide styrene emission limit.

EUCLEANUP

This emission unit covers miscellaneous cleanup equipment and activities. It has one material limit that no more than 440 gallons of dibasic ester containing solvents may be used for every 12-month rolling annual time period. Records demonstrating compliance are discussed below.

The following process restrictions are applied to the emission unit:

- Enclosed cleaning stations must be installed for cleaning fiberglass.
- Cleaning stations must have covers that completely close any openings while in use.
- Methylene Chloride may only be used in closed containers.
- Spray operations may only be used in enclosed cleaning stations and not exposed to ambient air.
- Waste solvent shall be collected into closed containers.

During the inspection, all above requirements could be observed in action. Cleaning stations were enclosed and operated properly. Waste containers could be seen being used. Closed containers could be seen for Methylene chloride use.

The facility is expected to keep the following records for EUCLEANUP:

- Stations should be visually inspected monthly to ensure proper covering integrity.
- The following monthly records shall be kept:
 - Identity of each cleanup material used.
 - Amount of each cleanup material used.
 - Cleanup solvent reclaimed (if any).
 - Visual station inspection reports.
 - Monthly dibasic ester usage.
 - 12-month rolling annual dibasic ester usage.

Records were provided and reviewed remotely. These records indicated that listing of solvents used and how much of each was used and reclaimed were properly maintained. Records of visual inspection results showed that stations have been maintained in proper working condition. Records were provided that showed lbs. of dibasic ester-containing cleaning solutions used throughout the facility. The records did not make a distinction between dibasic ester used within cleaning stations or used elsewhere throughout the facility. Though the permit requires record of dibasic ester used outside of cleaning stations, the combined record is acceptable as the below records demonstrate that even facility-wide use is within the permitted limit. Though records were provided in lbs., various forms of dibasic ester average a density of 9 lbs./gallon, as can be verified by MSDSs of dibasic ester. The below analyses could be gained from the provided records:

- In March of 2021, approximately 50 gallons of cleaners were used facility wide.
- In August of 2020 through July of 2021, approximately 330 gallons of cleaners were used facility wide.

The facility does not reclaim any used dibasic ester. As demonstrated above, the facility appears compliant with the permitted limits.

The facility is required to submit semiannual and annual ROP certifications. The facility has had challenges submitting these records in a timely and complete manner in 2020. A violation notice (VN) was issued in October of 2020 and resolved in December of 2020 regarding late submission of reporting. In March of 2021, reports were properly submitted with an appropriate deviation noted due to the previous late submission. The next ROP report certification is due September 15, 2021.

FGPLASTICCOMP

This flexible group covers all three emission units: EUCASTING, EUGELCOAT, and EUCLEANUP. Dry filters are used for particulate control in gelcoat spray booths and a baghouse is used for particulate control on EUCASTING.

The following emission limits apply to the flexible group:

- 65.1 tpy of Volatile Organic Compounds (VOCs)
- 522 lbs/ton of Organic HAP from Open Molding – Clear Gelcoat.
- 377 lbs/ton of Organic HAP from Open Molding – Pigmented Gelcoat.
- 605 lbs/ton of Organic HAP from Open Molding – High Performance Gelcoat.
- 267 lbs/ton of Organic HAP from Open Molding – White/Off White Gelcoat.
- 440 lbs/ton of Organic HAP from Open Molding – Tooling Gelcoat.
- 254 lbs/ton of Organic HAP from Mechanical Application – Tooling Resin.
- 157 lbs/ton of Organic HAP from Manual Application – Tooling Resin.
- 0.10 lb of particulate per 1000 lbs of exhaust gas.

The facility also has the following material limits:

- 44% VOC by weight of clear gelcoats.
- 37% VOC by weight of color gelcoats.
- 47% VOC by weight of Kitchen gelcoats.
- 35% VOC by weight of white/off-white gelcoats.
- 37% VOC by weight of resins.

- The facility shall not use any cleaning solvents in EUGELCOAT that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment.

Records demonstrating compliance with the above emission and material limits are discussed below.

This flexible group has four operational restrictions applied to it within the ROP.

- All waste from the flexible group shall be collected and stored in closed containers.
- HAP-containing material containers must be closed except when in use.
- Mixers shall be closed when in use including vents and openings for adding material.
- EUCASTING equipment shall not operate unless control equipment is installed and functional.

During inspection it could be observed that all waste and HAP-containing material containers were lidded except for those that were in use. In-use mixers were properly closed. During the inspection it could be observed that the baghouse was installed and functioning properly to control particulate from EUCASTING as demonstrated by an installed pressure drop gage.

The facility is required to ensure that all EUGELCOAT spray booths are equipped and operated with appropriate exhaust filters. This could be observed during the inspection.

The flexible group has three associated testing requirements in the ROP:

- HAP content of any materials shall be determined by MSDSs.
- VOC content, water content, and density of any materials shall be determined by manufacturers formula data.
- The AQD may require testing results to confirm particulate emission rates from the EUCASTING bag house.

During an on-site review of MSDSs and manufacturers formulation data it could be determined that HAP and VOC content data was available for all used materials. At the time of the inspection, the baghouse appeared to be operating properly with no visible particulate emissions. Because of this it is not felt by SE that testing is necessary to confirm particulate emission rates.

The facility is required to keep the following records in regards to the flexible group:

- Separate records for VOC and HAP content of each material must be maintained.
- MSDSs and manufacturers formulation data of each material shall be kept on site for each material used.
- The following monthly VOC records must be maintained:
 - Amount of each material used.
 - VOC content of each material used.
 - Emission factors from an approved source (as defined in the ROP) for each material used.
 - VOC emissions for each month.
 - VOC emissions for each 12-month rolling time period.
- The following monthly HAP records must be maintained.

- Demonstration that HAP emission calculations meet the methodology and limits described in 40 CFR Part 63 Subpart WWWW.
- Demonstration that HAP emission limits are met during combined processes.
- Demonstration of compliance with weighted average emission limits.
- Demonstration of continuous compliance with 40 CFR Part 63 Subpart WWWW (can be accomplished with adequate records documentation)
- The following 40 CFR Part 63 Subpart WWWW relevant records
 - Copy of each notification and report that is submitted.
 - All data used to determine HAP emissions.
 - Certified statement determining compliance with work standard practices.
- Record of maintenance operations on EUCASTING.

As discussed above, the facility had copies of MSDS sheets and formulation data available for review on site, which included information regarding HAP and VOC content of all used materials. Additionally, during the inspection, it was confirmed that all VOC and HAP records were available for immediate review as well as maintenance records for EUCASTING. For the sake of timeliness during inspection, VOC and HAP records for the time period of March 2020 through July 2021 were requested electronically for later review by SE. Records regarding all 40 CFR Part 63 Subpart WWWW requirements were also requested for the same time period. The following analyses were determined from these records:

- VOC Records
 - Charts demonstrating material use, VOC content, and VOC emission factors were provided in adequate format. These records appeared to indicate compliance with the above material limits.
 - The highest monthly VOC emission rate was 2,610 lbs. (1.3 tons) during July 2021.
 - The highest 12-month rolling annual VOC emission rate was 20,157.45 lbs (10.08 tons) from August 2020 through July 2021.
- HAP Records
 - HAP Calculations appear to follow required methodology parameters as outlined in 40 CFR Part 63 Subpart WWWW.
 - HAP emission limits meet requirements described above. These documents are not reiterated here for brevity and are, instead, attached to the report for review.
- 40 CFR Part 63 Subpart WWWW Records
 - All notifications were included in appropriate fashion.
 - MSDS sheets used for determining HAP levels and emissions calculations were provided as explained above.
 - Certified documentation was available for review during the inspection. Copies of all certificates of analysis were provided for all batches from April 2020 through July 2021. They are attached to this report for review if desired.

As demonstrated above, the facility appeared to be compliant with all emission limits and record keeping requirements.

The flexible group is subject to the following reporting requirements:

- The facility must promptly report deviations from ROP requirements.
- Semiannual reporting of deviations must be submitted.
- Annual compliance certification must be submitted.

- All notifications and reports must be submitted according to the timeframes outlined in 40 CFR 63.5910.

The facility follows the same reporting schedule for FGPLASTICCOMP as for EUCLEANUP. As discussed above, there were past issues with ROP certification reporting. These past reports have since been submitted. The next ROP certification is due September 15, 2021.

The flexible group has three associated stacks:

- SVGRANITE
- SVCLEAR
- SVKITCHEN

These stacks were not measured during the inspection for safety reasons. However, the stacks appeared to meet the dimensional requirements and do not appear to have been modified recently.

For this flexible group the facility is required to follow the guidelines of National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subparts A and WWWW. At the time of inspection and upon review of provided records the facility appears to be compliant. The facility is also required to maintain an approved Preventative Maintenance Plan (PMP) for the facility. This PMP was provided to the AQD during past ROP application and approval processes. It is approved and still in use at the facility.

Other Items

MAERS

The facility is expected to submit appropriate air emissions records annually through the Michigan Air Emissions Reporting System (MAERS). The most recent submission in 2021 was audited by SE. The results of the audit found the facility to be in compliance with reporting requirements.

Exempt Equipment

The facility has two boilers on site that re exempt from air permitting under Rule 282(2)(b)(i) as both are rated at 184,000 BTU and are both operated on natural gas. As both boilers are less than 10 mmBTU in output, they are both exempt from New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Dc. These boilers are both defined as hot water heaters (capacity of less than 120 gallons) and so are not subject to NESHAP 40 CFR Part 63 Subpart DDDDD.

The facility has one 40,000 gallon storage tank used for resin storage. It is exempt from air permitting by Rule 286(2)(a) as is used for plastic resin storage.

The facility has multiple pieces of cutting, grinding, and sanding equipment for the manufacturing of products. Much of this equipment is exempt from air permitting requirements by Rule 285(2)(I)(vi)(B) as it vents to the internal environment of the facility.

Some pieces of equipment are controlled by a baghouse that vents externally. This equipment is exempt from air permitting requirements by Rule 285(2)(I)(vi)(C). Historically, the facility has had

issues meeting the exemption requirements due to poor maintenance and operation of the baghouse. In 2018 a violation notice (VN) was issued for this issue and subsequently resolved. During this inspection, it appeared that the baghouse was not properly controlling particulate, though to a lesser degree. The shed that houses the baghouse in question contained styrene particulate matter and that the filtering unit itself had poor seals that were releasing large amounts of styrene into the shed interior (see pictures). This release into the shed could become a source of fugitive particulate emissions and demonstrates inadequate maintenance of the baghouse. A violation notice will be issued and a follow-up inspection will occur once proper maintenance has been completed to verify the repairs and resolve the violation.

Conclusion

At the conclusion of the inspection, the facility appeared to be in compliance with MI-ROP-N5101-2018a. An exempt baghouse was not compliant with maintenance requirements and a Violation Notice (VN) will be issued. Follow up with the facility will be conducted to confirm the resolution of this violation.



Image 1(Baghouse 1) : Interior view of baghouse.



Image 2(Baghouse 2) : Interior view of baghouse.



Image 3(Baghouse 3) : Interior of baghouse. Bottom of image shows where particulate escapes under door onto concrete pad outside.



Image 4(Baghouse 4) : Image shows where collection bin seal is failing to contain particulate matter.

NAME Scott Evans

DATE 9/8/2021

SUPERVISOR HH