

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

N553548811

FACILITY: Andronaco Industries		SRN / ID: N5535
LOCATION: 4242 44TH ST SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Kevin DeGraves, Quality/Safety Manager		ACTIVITY DATE: 05/10/2019
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Andronaco Industries (AI) facility, specifically Plant #3 located in Kentwood, MI on May 10, 2019 at 9:01am to complete a scheduled unannounced inspection. The weather conditions at the time of the inspection were temperatures in the low forties Fahrenheit, mostly cloudy skies and winds from the west at 10-15mph. Prior to entering the facility offsite odors and visible emission observations were completed. No identifiable odors and no emissions were observed.

Facility Description

AI is a manufacturer of fluoropolymer and composite products and technologies in various areas of industry such as chemical and pharmaceutical. The facility is a synthetic minor for hazardous air pollutants (HAPs) and is in operation with Opt Out Permit to Install (PTI) No. 108-13.

Offsite Compliance Review

Based on the timing of the inspection, the 2018 Michigan Air Emissions Reporting System (MAERS) Report was reviewed as part of the 2019 FCE. AI had initially submitted the 2018 MAERS Report with reported emissions that appeared to be unrealistic. This was brought to the attention of AI staff during the inspection. After discussing this it appeared to be a unit's issue and AQD staff AS would follow up with personnel on correcting and resubmitting the 2018 MAERS Report. After several submittals a correct 2018 MAERS Report with supporting documentation was submitted by AI. After further review, the report was determined to be acceptable.

Compliance Evaluation

During the course of the inspection process, AQD staff AS met with Mr. Joe Beaumont, Engineering Director, and Mr. Roger Campbell, Operations Manager, who provided a tour of the facility and answered site specific questions. AQD staff AS also met with and followed up with Mr. Chris Bossardet, and Mr. Kevin Degraves of AI on various records and the 2018 MAERS Report.

PTI No. 108-13

FGPLANT3

This flexible group at Plant No. 3 consists of the following operations; manual - hand layup (EUHANDLAYUP), fiberglass filament winding (EUFILWINDING), resin transfer molding (EURTM), pultrusion molding (EUPULTMOLDING) and composite mixing (EUCOMPMIXING). Each of the specific processes, with the exception of the operations associated with EUFILWINDING, were observed during the course of the site inspection. Equipment associated with EUFILWINDING was stated by AI staff to have been a process that never really took off and had been moved over to Plant #4 (adjoining building to the west).

This flexible group is subject to a combined volatile organic compound (VOC) and acetone (CAS No. 67-64-1) emission limit of 24 tons per year (tpy) per a 12-month rolling time period. Records were requested and reviewed from March 2018 through March 2019. Records provided have acetone and VOC emissions calculated separately. For the month of March 2019, 0.118 tons of VOCs were emitted and 1,056 lbs of acetone (approximately 0.528 tons) were emitted for a combined total of 0.646 tons of emissions. As of March 2019, the 12-rolling total of VOCs was 1.627 tons of VOCs emitted and acetone was 1.868 tons emitted for a combined total of 3.495 tons of emissions, which is well within the permitted limit of 24 tpy.

Previous 12-month rolling totals were also reviewed and appeared to be within permitted limits. Upon review of the records provided, recordkeeping errors were identified in the records received. These errors were discussed with the company and moving forward shall be corrected. Based on how low the combined 12-month rolling total combined acetone and VOC emissions are, AI appears to be meeting the emission limits.

Per Special Condition (SC). II.1, the styrene contents for all resins used in FGPLANT shall not exceed 53 percent by weight as applied. During the permitting process for PTI No. 108-13, a limit of 53 % by weight as applied styrene content limit for all resins was included for FGPLANT3. This value is being used to calculate styrene emissions for EUHANDLAYUP, EUFILWINDING, EURTM and EUPULTMOLD. Also, during the permitting process, it was noted that EUCOMPMIXING was the same as compression molding from Plant #1, which appears to be a maximum of 45% styrene content. This value appears to be used to calculate emissions for EUCOMPMIXING. Based on observations made during the inspection, AI appeared to be properly capturing and storing all waste resins and cleanup solvents.

Per SC.VI.3.a-e, AI shall keep track of usages for each resin and cleanup solvent, VOC and acetone contents for each resin and cleanup solvent used, appropriate emission factors for each material used and monthly/12 month rolling time period records of acetone and VOC emissions.

Records were requested and provided from March 2018 through March 2019. As previously stated, errors were identified during the review of the records provided and discussed with AI staff. AI uses three cleanup solvents that appear to each contain 100 percent acetone, toluene, and dimethylaniline respectively. Documentation was also requested to verify the VOC/acetone contents of each material used. Several Safety Data Sheets (SDS) were provided and it was determined that AI uses a worst-case content when calculating emissions. This was determined to be acceptable. Records reviewed show that the acetone cleanup solvent is reclaimed and applied to reported emissions. Waste acetone cleaning solvent is collected and weighed in drums before being sent offsite. The weighted value is then applied as reclaimed solvent to the emissions reported. This is incorrect and not considered true reclaim since the weighted materials will likely contain non solvent materials removed during the cleaning process. The proper application of reclaimed materials to reported emissions was discussed with AI staff and moving forward shall be correctly applied. After further review of the records provided, they were determined to be acceptable.

FGFACILITY

This flexible group is for all process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

This flexible group is subject to an individual and aggregate HAP emission limit of less than 9.0 tpy and less than 22.5 tpy respectively per a 12-month rolling time period. Records were requested and provided from March 2018 through March 2019. Based on the records provided, the total aggregate HAP emissions for the month of March 2019 was 0.15 tpy and the 12-month rolling time period of reported emissions for March 2019 was 1.947 tpy, which is well within the permitted emission limits for both individual and aggregate HAPs. Previous 12-month rolling totals also appeared to be within permitted limits.

Additionally, this flexible group is subject to a styrene (CAS No. 100-42-5) emission limit of 17,270.1 lbs/year based on a 12-month rolling time period. For the month of March 2019, 0.12 tons (240 lbs) of styrene was emitted and the 12-month rolling time period of reported emissions for March 2019 was 1.627 tpy (3,254 lbs), which is well within the permitted limit. Previous 12-month rolling time periods of reported styrene emissions were reviewed and also within the permitted limit.

Supporting documentation for the HAP contents was requested and provided. While speaking with AI staff it was concluded that AI is using worst case contents from SDS for resins to calculate emissions. Though this is technically not correct, after review of records provided it was concluded that based on how low AI's HAP emissions are, they appear to be meeting HAP emission limits. However, moving forward, AI shall, per PTI No. 108-13, use manufacturers formulation data sheets to identify HAP contents for all materials used.

Per FGFACILITY SC.VI.3.a-e, AI shall keep track of usage rates of HAP containing resin and solvents used, reclaim, if applicable, of any HAP containing materials used, HAP contents of each HAP containing resin or cleanup solvent used, appropriate HAP emission factors, and monthly/12-month rolling time

period individual and aggregate HAP emission rates. Records were requested and provided from March 2018 through March 2019. No HAP containing materials are reclaimed during the processes on site. As previously mentioned, AI is using worst-case scenario contents from SDS to calculate HAP emissions. Upon review of records provided and comparing them to SDS provided, errors were noted in HAP materials identified and amounts of reported emissions. However, based on the information provided, HAP emissions appear to still be below permitted limits. The records were discussed at length with AI staff and moving forward will be corrected to a more appropriate format. After further review, the records were determined to be acceptable.

Per FGFACILITY SC.VI.4.a-e, AI shall keep records of usage rates of styrene containing materials, styrene weight percent contents of each material used, appropriate styrene emission factors and monthly/12-month rolling time period emission rates. Applicable records were requested and provided from March 2018 through March 2019. Based on the records reviewed, it was determined that AI appears to be adequately keeping track of usage rates, styrene contents, appropriate emission factors and monthly/12-month rolling time period emission rates.

Additional Observations

- One paint booth was observed during the course of the site inspection that was installed in 2018. Minor air gaps in dry filters were observed and it was instructed to AI staff on limiting air gaps in filters in order to adequately capture emissions. Daily usage rates were provided since November 2018 when the unit appeared to start operation. Based on the usage rates provided, the paint booth appears to be exempt per Rule 287(2)(c).
- Welding/steel fabrication operations were observed during the course of the site inspection. Operations observed appear to be exempt per Rule 285(2)(i), Rule 285(2)(l)(i) and/or Rule 285(2)(l)(vi)(B).
- A pressure molding station was observed that is used to make Teflon tubes. Copies of SDS were provided for materials used. There appear to be no styrene emissions from this station. The pressure molding station appears to be exempt per Rule 286(2)(b).
- A roto-molding (rotational molding) station was observed during the course of the inspection. Here materials are placed in a cast and rotated while being heated to make the desired mold. Copies of SDS were provided for materials used. There appear to be no styrene emissions from this station. The roto-molding station appears to be exempt per Rule 286(2)(a).
- Three injection molding units were observed that appear to be exempt per Rule 286(2)(b).

Conclusion

Based on the facility walkthrough, observations made, and records received, AI appears to be in compliance with PTI No.108-13 and applicable air quality rules at this time.

NAME Adam J. Shaffer

DATE 06/18/19

SUPERVISOR 