

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

N776462418

FACILITY: M. ARGUESO & CO., INC. (DBA PARAMELT)		SRN / ID: N7764
LOCATION: 2817 MCCRACKEN ST, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Dennis Peters , Environmental, Health and Safety Coordinator		ACTIVITY DATE: 02/23/2022
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site compliance inspection to assess facility compliance with air quality regulations.		
RESOLVED COMPLAINTS:		

Introduction

On Wednesday, February 23, 2022, State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) staff member Scott Evans (SE) conducted an on-site unannounced inspection of the M. Argueso facility (dba Paramelt) located at 2817 McCracken St. in Muskegon, Michigan, to assess compliance with Permit to Install (PTI) No. 57-07D and all other applicable air quality regulations.

M. Argueso is a facility that produces various specialty wax products. They produce casting wax blends through processes that include melting, blending, filtering, coloring, and scenting of wax mixtures to be formed into pellets or flakes for use by other purchasing manufacturers.

The facility currently has an air permit modification application submitted to the AQD (APP2021-0341), which was submitted on November 12, 2022. This application was still under review at the time of writing of this report. The application is for the installation of a new hotmelt tank, replacing two reclaim tanks, and adjusting the roof and height of one stack.

Upon arrival at the facility, an inspection of the exterior showed no visible emissions (VEs) and only a mild, waxy odor that was present intermittently. After entering the facility SE was greeted by Dennis Peters (DP). After a brief discussion regarding the purpose of the visit, a walking inspection was conducted in which the entire facility interior was visited. As there were high winds that day, stacks were observed from the ground and no visit to the roof was made for safety. Records were requested digitally and received on March 7, 2022 for later, remote review.

PTI No. 57-07D

This permit was initially applied for on November 25, 2020 and approved on May 5, 2021. It includes requirements for five emission units (EUs) and two flexible groups (FGs), listed here:

- EU-1 (7,500 cfm Tri-Mer Whirl wet dust collector)
- EU-2 (Aluminum mesh pre- filter, a 5000 cfm Tri-Mer Whirl wet dust collector, and a 3000- pound carbon adsorption bed system)
- EU-3 (4500 cfm Tri-Mer Whirl wet dust collector)
- EU-4 (3000 cfm Tri-Mer Whirl wet dust collector)
- EU-5 (Hotmelt tank and Tri Mer box filter)
- FG-EU1-2-3-4-5
- FGFACILITY

FG-EU1-2-3-4-5

This flexible group encompasses all five emission units. These emission units encompass all process tanks, all filters, all particulate control devices, and a carbon adsorption bed that was installed in order to manage nuisance odors after numerous complaints in years past. In 2020 a destruction efficiency test was conducted on the carbon bed to determine efficacy of VOC destruction of the device. Results initially showed a destruction efficiency value of the bed at less than 90% as is required by PTI No. 57-07A, which was the precursor permit to the currently active one. However, a closer review of the results found that VOC emissions from the device were low enough that destruction efficiency was not a meaningful measure of function of the device. As a result of this test and the results, a permit modification was issued with alternative methods of assessing functionality of the carbon adsorption bed, which are reflected in the current PTI and are assessed later in this report.

There are 17 emission limits within the PTI for this flexible group:

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. Opacity	10 percent	6-minute Average	EU-1, EU-2, EU-3, EU-4, EU-5
2. PM	0.01 lbs per 1,000 lbs of gas ^a	Hourly	EU-1
3. PM2.5	0.31 pph	Hourly	EU-1
4. PM10	0.31 pph	Hourly	EU-1
5. PM	0.01 lbs per 1,000 lbs of gas ^a	Hourly	EU-2
6. PM2.5	0.20 pph	Hourly	EU-2
7. PM10	0.20 pph	Hourly	EU-2
8. PM	0.01 lbs per 1,000 lbs of gas ^a	Hourly	EU-3
9. PM2.5	0.18 pph	Hourly	EU-3
10. PM10	0.18 pph	Hourly	EU-3
11. PM	0.01 lbs per 1,000 lbs of gas ^a	Hourly	EU-4
12. PM2.5	0.12 pph	Hourly	EU-4
13. PM10	0.12 pph	Hourly	EU-4
14. PM2.5	0.1 pph	Hourly	EU-5

Pollutant	Limit	Time Period / Operating Scenario	Equipment
15. PM10	0.1 pph	Hourly	EU-5
16. PM	0.01 lbs per 1,000 lbs of gas ^a	Hourly	EU-5
17. VOC	15.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-EU-1-2-3-4-5

Records confirming compliance with these limits are discussed later in this report.

This FG has one material limit included in the PTI: the facility cannot melt any material with a vinyl acetate content of more than 0.04%. Records demonstrating compliance with this requirement are discussed later in this report.

This FG has two operational restrictions included in the PTI:

- The facility is required to reclaim and dispose of wastes in an appropriate manner.
- The facility may not operate the emission units unless an appropriate Malfunction Abatement Plan (MAP) for each wet dust collector and carbon adsorption bed system has been submitted and is implemented and maintained.

During the inspection, dust collection and other control measures were observed and in operation to capture any waste materials. These materials are then sent to landfill. The facility has submitted an appropriate MAP and continues to follow the procedures that it outlines. This demonstrates compliance with the operational restrictions.

This FG has three design parameters included in the PTI:

- The emission units cannot operate unless wet dust collectors are installed and operational for each unit.
- EU-2 cannot operate unless the carbon adsorption bed is in operation.
- There must be an appropriate pressure gauge installed in the carbon adsorption system.

During the inspection, as discussed above, the wet dust collectors were installed and operating as required. Daily visible emission readings are required to verify proper operation. The carbon bed was operational during the inspection with an appropriate pressure gauge. At the time of the inspection the gauge was reading approximately 8 mmHg. This appears to meet operational standards as outlined in the MAP and demonstrates compliance with the design requirements.

This FG has five testing requirements included in the PTI:

- Facility is required to test to determine the VOC content, water content, and density of any material used unless use of manufacturer data has been requested and approved.
- If the AQD requests it, the facility is required to verify PM emission rates.
- If the AQD requests it, the facility is required to verify PM2.5 and PM10 emission rates.

- If the AQD requests it, the facility is required to verify outlet concentration of the carbon adsorption system.
- If the AQD requests it, the facility is required to verify vinyl acetate content of used materials.

The facility has previously requested and been granted permission to use manufacturing data for emissions calculations. Though this approval was for older versions of this permit, the modifications that have been made have not included significant changes to processes or materials used. Therefore, past approval will be maintained at this time. Currently it is not felt that any other testing is necessary.

This FG has seven recordkeeping requirements included in the PTI:

- Records are required to be kept in a format acceptable to the AQD.
- Records of manufacturer data regarding material composition must be kept.
- The facility is required to keep daily recordings of the carbon adsorption bed pressure readings.
- Visible emission (VE) ratings are required to be taken every day for each dust collector.
- VE ratings are required to be taken every day for each emission unit.
- The following records are required to be kept monthly:
 - Amount of each material used and reclaimed
 - VOC content of each material.
 - Monthly VOC emissions.
 - 12-month rolling annual VOC emissions.
- MSDS for vinyl acetate containing materials must be kept on site.

During the inspection it was confirmed that manufacturer data regarding material chemical composition and VOC content as well as the MSDSs for vinyl acetate containing materials were kept on site. At a later date, records were sent by the facility to demonstrate compliance with recordkeeping requirements. Emissions records were provided for the previous calendar year ending February 2022. Records pertaining to carbon bed pressure readings and visible emissions were only requested for the month of January 2022, as these records were handwritten and would require hand scanning. While on site, DP showed SE where those records were kept, confirming that they are retained for the required amount of time. The records provided were in an acceptable format. The following analyses were gained from the submitted records:

- Carbon bed pressure readings ranged from approximately 8 to 12 mmHg throughout January 2022.
- No incidences of VEs were recorded from any emission units or carbon beds during daily VE readings of each unit.
- Material use and reclamation were recorded in detail. For brevity, a copy of these records will be included with the report if a more detailed analysis is desired.
- Monthly VOC emissions peaked at 1.47 tons in October 2021.
- Annual VOC emissions peaked at 10.53 tpy from March 2021 through February 2022.

The analyses above indicate that the facility is in compliance with the associated VOC and VE limits. It is worth noting that, although record keeping requirements within the permit do not require explicit records of PM emissions, the facility did provide an analysis for each emission unit in the form of scanned checklists that are filled out by employees daily. These records confirmed that all lbs/hr measurements of emissions were well below the permitted values listed above. These records are included with this report if detailed analysis is desired.

The facility is required to have five stacks for each EU. The dimensions of the stacks were not measured during the inspection for safety reasons, but visual inspection confirmed they were all installed properly and appeared to meet the dimension requirements of the permit.

EGFACILITY

This flexible group includes all process equipment within the facility.

This flexible group has two source-wide emission limits included in the permit:

- Individual Hazardous air pollutant (HAP) emissions cannot exceed 8.9 tpy per 12 month rolling time period.
- Aggregate HAP emissions cannot exceed 22.4 tpy per 12 month rolling time period.

Compliance with these limits is discussed later in this report during the discussion of recordkeeping requirements.

This facility is required to use manufacturer data to determine HAP content for calculations. As discussed above, the facility maintains records of the chemical compositions of all materials used. This demonstrates compliance with the requirement.

There are facility wide recordkeeping requirements included in the permit:

- Records are required to be kept in a format acceptable to the AQD.
- The following records must be kept monthly:
 - Amount of HAP containing material used.
 - HAP containing material reclaimed, if applicable.
 - HAP content of each material.
 - Monthly emissions for individual HAPs.
 - 12-month rolling annual emissions for individual HAPs.
 - Monthly emissions for aggregate HAPs.
 - 12-month rolling annual emissions for aggregate HAPs.

As already discussed, the facility was able to demonstrate HAP content of each material through manufacturer data records. All other necessary records were provided for review remotely in a format that was acceptable to the AQD. The following analyses were determined from the provided records:

- Detailed material usage data was provided. Copies are included with this report for detailed review if desired.
- No individual HAP-containing material emissions reached or exceeded 1 tpy over any 12-month rolling annual period.
- Aggregate HAP monthly emissions peaked at 0.052 tons in July 2021.
- Aggregate HAP annual emissions peaked at 0.364 tpy from March 2021 through February 2022.

These analyses indicate that the facility is well within compliance of all facility wide HAP limits as well as all record keeping requirements.

MAERS

The facility submitted their MEARS report for the 2020 calendar year on February 24, 2021. No issues were noted during an audit of the report. A copy of the MAERS report is included with this report.

Exemptions

The facility has one boiler on site that was installed in 1994. It is a natural gas boiler rated at ~8 mmBTU. Because the heat output is less than 10 mmBTU for this unit it is not subject to the New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart Dc. Because the unit is a gas-fired unit, it is not subject to the Boiler Maximum Affective Control Technology (MACT) regulation 40 CFR Part 63 Subpart JJJJJ. This boiler is exempt from air permitting requirements by Rule 282(2)(b)(i).

Conclusion

At this time the facility appears to be compliant with all conditions contained within PTI No. 57-07D as well as all other applicable air quality regulations.

NAME Scott EvansDATE 3/31/2022SUPERVISOR 