

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

N776467362

FACILITY: M. ARGUESO & CO., INC. (DBA PARAMELT)		SRN / ID: N7764
LOCATION: 2817 MCCracken ST, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: James Noviss ,		ACTIVITY DATE: 04/04/2023
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site inspection to investigate odor complaints and assess compliance with air quality rules and regulations.		
RESOLVED COMPLAINTS:		

Introduction

On Tuesday, April 4, 2023, 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. 57-07E and all other applicable air quality regulations. This inspection was conducted in response to complaints submitted to the AQD regarding concerns of odors that may be originating from the facility.

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.

Upon arrival at the facility, an inspection of the exterior showed no visible emissions (VEs). While observing for odors within the neighborhoods surrounding the facility, faint and intermittent odors could be observed directly outside of the southwest border fence of the facility. Odors from further out in any direction from the facility were not observed. There was little wind during the time of observations. After entering the facility SE was greeted by EHS manager James Noviss. After a brief discussion regarding the purpose of the visit, a walking inspection was conducted of the entire facility interior as well as the outside property around the facility buildings. During the exterior walk, there were only faint and intermittent odors detectable at any location. Required records of various processes discussed below were observed briefly on site to ensure appropriate record keeping and retention while copies were requested and provided digitally on Wednesday, April 5, 2023.

PTI No. 57-07E

This permit includes opt-out limits for Hazardous Air Pollutants (HAPs) and was modified on April 15, 2022. The modification was for an additional tank used to hold 30,000 lbs of hotmelt wax and the replacement of two other tanks as well as the relocation of one stack. 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 for tanks M-1 through M-7 and R-4)
- EU-2 (Aluminum mesh pre- filter, a 5000 cfm Tri-Mer Whirl wet dust collector, and a 3000-pound carbon adsorption bed system for tanks R-1 through R-3, R-5, R-7 through R-10, R-13, and R-14)
- EU-3 (4500 cfm Tri-Mer Whirl wet dust collector for tanks HB-1, HB-2, S-1, S-2, V-1, and V-2)
- EU-4 (3000 cfm Tri-Mer Whirl wet dust collector for tanks R-11 and R-12)
- EU-5 (Two hotmelt wax tanks 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 VOC destruction efficiency. Results initially showed a destruction efficiency of the bed of less than the 90% 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
15. PM10	0.1 pph	Hourly	EU-5

Pollutant	Limit	Time Period / Operating Scenario	Equipment
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 the above compliance assessments are discussed in greater detail 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 had previously submitted an appropriate MAP for the previous version of this PTI. The most recent modification of the PTI did not result in any changes to processes requiring changes to the MAP and the facilities 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: DC-1 at ~9 psig, DC-2 at ~8.5 psig and a Carbon Bed reading of ~0.1 mmHg, DC-3 at ~8 psig, DC-4 at ~psig, and DC-5 at ~0.5 mmHg. A set of daily inspection logs for each unit is included with this report, which demonstrate that the above values are within expected operational standards. These records also include notes which explain causes and actions taken on days when readings are outside of expected ranges. Daily visible emission readings are conducted to verify proper operation. This is consistent with proper functionality of the system. In response to received odor complaints the facility recently raked the carbon bed to ensure proper operation. This appears to meet operational standards as outlined in the MAP, which also requires monthly raking of the carbon bed to ensure proper operation. It was also discussed with and expressed by the facility that raking occurs more frequently as needed if issues or odors are identified as part of the daily maintenance check.

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's formulation 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 PM_{2.5} 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 manufacturer's formulation data for emissions calculations. Though this approval was for older versions of this permit, the most recent modifications have not included 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 six 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.

During the inspection it was confirmed that manufacturer's formulation data for material chemical composition and VOC content as well as the MSDSs for vinyl acetate containing materials were kept on site. As discussed above, digital copies of records were sent to the AQD by the facility to demonstrate compliance with recordkeeping requirements. Emissions records were provided for August 2017 through March 2023. Records pertaining to carbon bed pressure readings and visible emissions were only requested for the month of March, 2023, as these records were handwritten and would require hand scanning. While on site, JN 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 largely ranged from approximately 8 to 12 mmHg throughout recorded periods. Some instances of pressures out of range were observed, some of which could be seen to align with dates of submitted odor complaint. This is discussed further below.

- No incidents 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. A copy of these records will be included with the report.
- Monthly VOC emissions peaked at 0.912 tpy in September of 2022.
- Annual VOC emissions peaked at 11.514 tpy in September of 2022. This is within the permitted limit.

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 are included with this report.

As discussed above, there were some instances of out-of-range pressure readings of the carbon bed. These readings were only observed to be as low as 0.0 mmHg within the provided records. This was discussed with facility representatives who explained that the procedure when such readings occur is to run maintenance as needed to bring the equipment back into proper functional parameters, pausing production or delaying new production runs if needed. This appears to align with the nature of complaints, which describe the odors as inconsistent and relatively short lived. It was discussed with the facility to continue this practice and to continue recording readings as necessary. During the inspection, odor observations found that the odors in the immediate outdoor area around the facility were a barely detectable paint-like odor which only occurred intermittently as wind direction and strength allowed. At this time, this is not considered to be an unreasonable interference with comfortable enjoyment of life to neighbors near the facility and so no violation notice will be issued. Complainants have been guided to continue informing AQD staff of ongoing issues and the facility was advised that continued monitoring of odors in the surrounding area will occur to ensure continued efforts to minimize odors and that if the problem continues or worsens a violation notice may become warranted. Facility staff welcomed communication of future issues so that they may be addressed as needed.

The facility has five permitted stacks. These stacks were not measured directly for safety purposes, but upon inspection all appeared to be in compliance with permitted size requirements.

FGFACILITY

This flexible group includes all process equipment within the facility including permitted, grandfathered, and exempt equipment.

This flexible group has two 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's formulation data to determine HAP content for calculations. AQD staff may request independent verification of HAP content by the facility if deemed necessary, but at this time this is not seen as necessary. 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 formulation data. 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 0.056 in October of 2022.
- Aggregate HAP annual emissions peaked at 0.540 in November of 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 has submitted their 2023 MEARS report. The submission was complete and on time. An audit of the report verified proper submission and no errors were observed with the reported data.

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 the conclusion of the inspection, the facility appeared to be in compliance with all permit requirements as well as all other applicable air quality rules and regulations. As discussed above,

concerns of odors were investigated. It was determined that no violation notice should be issued at this time in light of the nature of the odors. The situation will continue to be monitored.

NAME Scott Evans

DATE 5/10/2023

SUPERVISOR 