

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

P005970867

<b>FACILITY:</b> Mediatechnologies LLC		<b>SRN / ID:</b> P0059
<b>LOCATION:</b> 892 Industrial Park Dr, SHELBY		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> SHELBY		<b>COUNTY:</b> OCEANA
<b>CONTACT:</b> Randy Seaver , President		<b>ACTIVITY DATE:</b> 01/11/2024
<b>STAFF:</b> Scott Evans	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> On-site inspection to assess compliance with air quality rules and regulations.		
<b>RESOLVED COMPLAINTS:</b>		

### Introduction

On January 11, 2024, State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division staff member Scott Evans (SE) conducted an on-site inspection of the Media Technologies LLC facility located at 892 Industrial Park Dr. in Shelby, Michigan, to assess compliance with the requirements of Permit to Install (PTI) No. 136-12, PTI No. 29-10, and all other applicable air quality rules and regulations. Media Technologies LLC is a wood furniture manufacturing plant. There are two buildings that house equipment for shaping, sanding, finishing, gluing, assembling, packaging, and shipping wooden furniture. Upon arrival at the facility SE conducted an inspection of the facility perimeter. No visible emissions (VEs) were observed, and only mild, intermittent odors of woodworking were observed outside of the facility property. SE entered the facility and was greeted by Joe Grevious. After a discussion of the purpose of the day's visit, an inspection of the facility interior was conducted.

### PTI No. 136-12

This PTI was first approved on January 22, 2013. It includes requirements for the following Emission Units (EUs) and Flexible Groups (FGs):

- EU-FLATLINE1
- FGFACILITY

### EU-FLATLINE1

This EU consists of a wood furniture coating line that has a flatline twin spray machine with eight spray guns and a natural gas flash oven. There are two emission limits associated with this EU:

Pollutant	Limit	Time Period / Operating Scenario	Highest Recorded	Compliant? (Y/N)
1. VOCs and acetone (CAS No. 67-64-1)	25.0 tpy	12-month rolling time period as determined at the end of each calendar month	6.1114 tpy on January 31, 2023	Y
2. Formaldehyde (CAS No. 50-00-0)	2277 lb/yr	12-month rolling time period as determined at the end of each calendar month	0 lb/yr	Y

The compliance determinations within the table above were determined with the use of provided records, which are discussed further below in this report.

This EU has three associated material limits:

Material	Limit	Time Period / Operating Scenario	Highest Recorded	Compliant? (Y/N)
1. VOC Content of Sealers	3.3 lb/gal (minus water) <sup>a</sup> as applied	Instantaneous	0.61 lb/gal	Y
2. VOC Content of Stains	2.2 lb/gal (minus water) <sup>a</sup> as applied	Instantaneous	2.2 lb/gal	Y
3. VOC Content of Topcoats	5.0 lb/gal (minus water) <sup>a</sup> as applied	Instantaneous	3.7 lb/gal	Y

Footnote <sup>a</sup>: The phrase “minus water” shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound.

The compliance determinations within the table above were determined with the use of provided records, which are discussed further below in this report. It is worth noting that the recorded VOC content of the Staining material is meeting the limit. While this is not a violation, it was mentioned to the facility to pay close attention to all stains used and continue to check that formulations of the currently used stains don't change to exceed the permitted value.

This EU has three associated process restrictions. The first states that all waste materials shall be captured and stored in closed containers as well as disposed of in an acceptable manner. During the inspection it was observed that waste materials are stored in closed 50-gallon containers and then removed by a contracted waste removal company.

The second process restriction states that waste filters shall be disposed of in a way so as to minimize release of pollutants into ambient air. During the inspection it was observed that used filters are appropriately bagged and then sent to landfill for disposal.

The third process restriction states that all VOC and HAP-containing materials shall be handled so as to minimize release of fugitive emissions. During the inspection it was observed that all materials are stored in closed containers until use.

This EU has two associated design parameters. The first states that the EU cannot operate unless all exhaust filters are installed and maintained appropriately. During the inspection it was observed that filters were properly installed and in good condition. It was discussed that filter replacement happens on an as needed basis and is dependent on usage volume during production.

The second parameter states that all spray applicators must be proper High Velocity Low Pressure (HVLP) or comparable applicators. During the inspection it was observed that all nozzles were an appropriate HVLP style spray gun.

This EU has one testing requirement which states that the facility must determine VOC content of materials through use of Method 24 testing unless a previous request has been submitted and approved to use manufacturer data for VOC content determination. This facility has previously requested permission to use manufacturer data and this has been approved. The records discussed below were determined through the use of manufacturer data as approved.

This EU has four associated recordkeeping requirements. The first states that all records shall be provided to the AQD upon request by the 15<sup>th</sup> of the month in an acceptable format. Records were provided in a timely fashion. There were observed errors in the formulas used to calculate 12-

month rolling emissions that resulted in more than 12 months being added to the totals. These heightened totals were still within the permitted emissions limits and the data used to calculate this information was provided so that actual 12-month rolling totals could still be calculated. This was discussed with the facility and they were advised to correct their formulas for future calculations.

The second recordkeeping requirement states that a current listing of chemical composition of each used material shall be maintained on site by the facility. This list was maintained appropriately as observed on site. Additionally, this information is demonstrated as being maintained as it is used to provide further records as discussed below.

The third requirement states that the following VOC and acetone records shall be maintained on a monthly basis:

- Gallons of each material used.
- VOC and acetone content of each material.
- Monthly VOC and acetone mass emissions.
- 12-month rolling VOC and acetone mass emissions.

Records were provided and used to determine the compliance with emission and material limits discussed above. Copies of these records are included with this report.

The fourth requirement states that the following formaldehyde records shall be maintained on a monthly basis:

- Gallons of each material used.
- Formaldehyde content of each material.
- Formaldehyde material reclaimed (if any).
- Monthly formaldehyde mass emissions.
- 12-month rolling formaldehyde mass emissions.

Records were provided and used to determine the compliance with emission and material limits discussed above. Copies of these records are included with this report. It is notable that the list provided includes VOC lb/gal data for all materials used historically as well as presently. Some of these materials included have VOC lb/gal contents that exceed the permitted emissions limits. However, none with exceeding values were used within the scope of the provided records. This was discussed with the facility and they were advised to pay careful attention to VOC contents of used materials to ensure violations are not committed. Additionally, the facility was advised to consider cleaning up records to remove unused materials from the list to avoid potential confusion during future records reviews.

This EU has two associated stacks. One stack is associated with the flatline applicator and one with the flash oven. During the inspection All stacks could be seen with appropriate equipment connected as needed. Stacks were not measured for safety, but all appeared to be within permitted dimensional parameters.

#### FGFACILITY

This FG includes all process equipment source-wide. There are two associated emission limits:

Pollutant	Limit	Time Period / Operating Scenario	Highest Recorded	Compliant? (Y/N)
1. Each Individual HAP	Less than 9.0 tpy *	12-month rolling time period as determined at the end of each calendar month	0.0052 tpy Xylene December 2023	Y
2. Aggregate HAPs	Less than 22.5 tpy *	12-month rolling time period as determined at the end of each calendar month	0.0129 tpy December 2023	Y

Compliance with these requirements was determined through the review of provided records, which are discussed further below.

This FG has one associated testing requirement which states that the facility must determine HAP content of materials through use of manufacturer formulation data. In records provided as discussed below the facility utilizes manufacturer data as required.

This FG has two associated records requirements. The first states that all records shall be provided to the AQD upon request by the 15<sup>th</sup> of the month in an acceptable format. Records were provided in a timely fashion and were in an acceptable format.

The second recordkeeping requirement states that the following monthly HAP records must be maintained:

- Amount of each HAP-containing material used.
- Amount of HAP-containing material reclaimed (if any).
- HAP content of each HAP-containing material used.
- Monthly individual and aggregate HAP emissions.
- 12-month annual individual and aggregate HAP emissions.

Records were provided as required to determine compliance with the above requirements and emission limits discussed above.

#### **PTI No. 29-10**

This PTI is a general PTI that applies to all facilities with applicable coating lines emitting up to 10 tpy of VOCs. The facility is subject to the most recent version of this general permit. It includes requirement for two FGs as follows:

- FG-COATING
- FG-SOURCE

Many requirements within this general permit are only applicable to facilities that utilize thermal or catalytic oxidizers for emission control. As this facility is not utilizing such technology, these requirements are not applicable. All other applicable requirements can be characterized as either the below emission limits or equipment and recordkeeping requirements that are met through the adherence of requirements within PTI No. 136-12.

Pollutant	Limit	Time Period	Highest Recorded	Compliant? (Y/N)
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1. VOC	2000 lb/month	Calendar month	0.7489 lb/month January 2023	Y
2. VOC (FG-COATING)	10 tpy	12-month rolling time period as determined at the end of each calendar month	1.2849 tpy December 2023	Y
3. VOC (FG-Source)	30 tpy	12-month rolling time period as determined at the end of each calendar month	5.029 tpy December 2023	Y

Records were provided by the facility to determine compliance with these requirements. The 12-month rolling time period recordkeeping error that was discussed above for PTI No. 136-12 is true for these records as well. The records were sufficient for determining compliance with the above limits, though the facility was advised to correct noted errors in calculation formulas within the records documents.

### Reporting Requirements

This facility is required to report annual emissions data through the Michigan Air Emissions Reporting System (MAERS). This facility has regularly submitted reports in a complete and timely fashion.

### Exempt Equipment

This facility has multiple pieces of woodworking equipment including sawing, drilling, sanding, and planning equipment. This equipment all meets the requirements of PTI exemption under Rule 285 (2)(i)(vi).

The facility has two adhesive coating lines. One utilizes less than 2 gallons of adhesive per day and so meets the requirements of exemption Rule 287(2)(a). The other is a hot-melt line that is exempt from permitting requirements under Rule 287(2)(i).

The facility has multiple hand-spray booths that are exempt from permitting requirements. One is used for application of contact cement and utilizes fabric filters and so meets the requirements of Rule 287(2)(a). The remaining booths are used for touch-up operations with monthly usage of coatings not exceeding 100 gallons and utilize fabric filters, meeting the requirements of Rule 287 (2)(c).

### Conclusion

At the conclusion of the inspection the facility appeared to be compliant with all permitted requirements as well as all other applicable air quality rules and regulations.

NAME Scott Evans DATE 2/22/2024 SUPERVISOR PHH