

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

N587772242

<b>FACILITY:</b> Gilmore Inc.		<b>SRN / ID:</b> N5877
<b>LOCATION:</b> 321 TERMINAL ST SW, GRAND RAPIDS		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> GRAND RAPIDS		<b>COUNTY:</b> KENT
<b>CONTACT:</b> Mike Emley , Engineering Manager		<b>ACTIVITY DATE:</b> 06/11/2024
<b>STAFF:</b> April Lazzaro	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Unannounced, scheduled inspection.		
<b>RESOLVED COMPLAINTS:</b>		

Air Quality Division staff, April Lazzaro arrived at Gilmore, Inc. at approximately 11:20 AM to conduct an unannounced, scheduled inspection. Upon arrival, no odors or visible emissions were observed. I contacted Michael Emley, Plant Engineer/Safety Director by phone, who met me at the front office.

#### **FACILITY DESCRIPTION**

Gilmore, Inc. is a furniture manufacturing facility that creates original equipment manufacturer (OEM) and custom products that include wood, metal and upholstered items. These items range in size from chairs and benches, cylinder and cube tables to large conference tables and lounge seating.

Gilmore, Inc. operates pursuant to Opt-out Permit to Install No. 36-96C, which limits Volatile Organic Compounds (VOC) and Hazardous Air Pollutant (HAP) emissions. Operations include seven externally vented (7) spray booths, and a variety of woodworking equipment controlled by a baghouse, as well as woodworking equipment controlled by smaller internally vented fabric filters. There are two internally vented water based adhesive booths as well. In 2015 an addition was made to the original facility.

Coatings applied in the booths consist of stains, sealers, fillers, glazes, lacquers, primer and contact adhesive. The permit requires recordkeeping of emissions based on material usage, and emissions are calculated in an excel spreadsheet.

#### **COMPLIANCE EVALUATION**

##### **EUWOODCOAT**

##### **EMISSION LIMIT(S)**

EUWOODCOAT has limitations on 4 pollutants including VOC and acetone combined, xylene, isopropyl alcohol and formaldehyde. Based on comments made during previous inspections, Mr. Emley adjusted the recordkeeping by adding columns to the spreadsheet.

VOC and acetone combined are limited to 30.0 tons per 12-month rolling time period as determined at the end of each calendar month. For the time frame of June 2023-May 2024, current reported VOC and acetone emissions combined are 23.1 tons.

Xylene emissions are limited to 37.5 lbs/day. The highest reported emissions of xylene per day was 22 pounds. This value is typical for each month.

Isopropyl alcohol emissions are limited to 82.5 lbs/day. The highest reported emissions of isopropyl alcohol per day was in March 2023 at 23 pounds.

Formaldehyde emissions are limited to 200 lbs/year per 12-month rolling time period as determined at the end of each calendar month. For the time frame of June 2023-May 2024, the reported formaldehyde emissions are zero pounds.

##### **MATERIAL LIMIT(S)**

The VOC's in adhesives are limited to 5.2 lbs/gal (minus water) as applied, VOCs in Primers Sealers, and Topcoats are limited to 6.0 lbs/gal (minus water) as applied and VOCs in stains are limited to 7.0 lbs/gal (minus water) as applied. During the inspection, Mr. Emley and I discussed the materials

currently in use. Following the topcoat exceedance identified during the last inspection, they monitor the VOC content closely. A reformulation of the one product that led to the exceedance during the last inspection was conducted and has been resolved.

#### **PROCESS/OPERATIONAL RESTRICTIONS**

The permittee shall capture all waste materials and store them in closed containers. While in the paint/stain mix room, I observed that all containers were equipped with a cover, indicating that the guidance provided during the last inspection about making sure the materials were covered at all times was implemented and continues to be maintained.

The spent filters appeared to be properly disposed of and otherwise housekeeping was good.

#### **DESIGN/EQUIPMENT PARAMETERS**

We inspected the filters on the booth exhausts and found them to be properly placed. They only use one filter, as opposed to the typical 2 filter sequence. We discussed ensuring all corners of each filter is properly placed, as the material solids will travel the path of least resistance.

During the last inspection, it was found that some HVLP guns were in use, and as such, the permit was modified to allow the use of that type of applicator for the contact adhesive.

#### **TESTING/SAMPLING**

The permit requires testing of coatings per Method 24, or manufacturer's formulation data if prior written approval is received. The AQD approved the use of formulation data in 2020.

#### **MONITORING/RECORDKEEPING**

The permit requires that records be maintained and calculated by the 15<sup>th</sup> day of the calendar month for the previous calendar month. All records are being maintained in a timely fashion.

The current recordkeeping spreadsheet was reviewed and found to contain all of the required information in a format where compliance with each limit is easy to determine.

#### **FGFACILITY**

The FGFACILITY flexible group limits the potential to emit of HAP emissions. Each individual HAP is limited to less than 10.0 tons per 12-month rolling time period and aggregate HAPs are limited to less than 25.0 tons per 12-month rolling time period. Both are to be determined and calculated by the 15<sup>th</sup> day of the calendar month for the previous calendar month.

Gilmore is not providing a 12-month rolling total of individual or aggregate HAP emissions, however the values were easily determined from the records being maintained. This was identified during the previous inspection, and it would be appropriate for Gilmore to total the HAP in the spreadsheet moving forward. The largest HAP emissions are generated by toluene and hexane. It appears aggregate HAP emissions are 4.87 tons tons per 12-month rolling time period (up from 3.6 tons during the last inspection). The permit recordkeeping spreadsheet should be updated to included 12-month rolling total emissions of HAP on an individual and aggregate basis. It is also noted that methyl ethyl ketone is also included in the HAPs recordkeeping but can be removed from the HAPs list as it is not a HAP. Recordkeeping is attached.

Gilmore, Inc. operates a baghouse that controls particulate emissions generated by the various woodworking equipment at the facility. This baghouse is exempt from permitting pursuant to Rule 285(2)(l)(vi)(C). Gilmore, Inc. makes their product from a variety of wood, including particle board, plywood, medium density fiberboard (MDF), hardwoods and laminate. The majority of woodworking equipment is ducted to the baghouse, however there are some individually controlled, internally vented machines as well. A review of the exterior of the baghouse found the unit in good shape and an annual preventative maintenance inspection is conducted. We discussed baghouse maintenance with the Maintenance Supervisor, who had recently replaced the paddles that move the sawdust through the system to the collection bin to alleviate plugging. There was a small pile of sawdust from that replacement present that Gilmore stated they will clean up right away. This unit is vented

externally during the hot summer months and is directed into the plant during the winter to conserve heat.

#### CONCLUSION

Gilmore, Inc. was in compliance at the time of the inspection.

NAME April Lazzaro

DATE 06/14/2024

SUPERVISOR HH