

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

N587752357

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| FACILITY: Gilmore Inc. | | SRN / ID: N5877 |
| LOCATION: 321 TERMINAL ST SW, WYOMING | | DISTRICT: Grand Rapids |
| CITY: WYOMING | | COUNTY: KENT |
| CONTACT: Mike Emley, Engineering Manager | | ACTIVITY DATE: 01/23/2020 |
| STAFF: April Lazzaro | COMPLIANCE STATUS: Non Compliance | SOURCE CLASS: SM OPT OUT |
| SUBJECT: Unannounced, scheduled inspection. | | |
| RESOLVED COMPLAINTS: | | |

I arrived at Gilmore, Inc. at approximately 2:00 PM to conduct an unannounced, scheduled inspection. I asked for Brandon Fowler, and learned he was no longer with the company. I was quickly directed to Michael Emley, Plant Engineer/Safety Director.

FACILITY DESCRIPTION

Gilmore, Inc. is a furniture manufacturing facility that creates 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. 36-96B, 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 built 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 from previous inspections, Mr. Emley made adjustments to 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 December 2018-November 2019, current reported VOC and acetone emissions combined are 15.5 tons.

Xylene emissions are limited to 37.5 lbs/day. The highest reported emissions of xylene per day was found in August 2018 and October 2019 and was 23 lbs.

Isopropyl Alcohol emissions are limited to 82.5 lbs/day. The highest reported emissions of xylene per day was found in December 2019 and was 11.69 lbs.

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 December 2018-November 2019, current reported formaldehyde emissions are zero lbs.

MATERIAL LIMIT(S)

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. A review of the most frequently used adhesive found that the VOC content is 4.87 lbs/gal (minus water) as applied. A review of the most frequently used primer, sealer and topcoats found that the topcoat used is a two-component material. The two components consist of the topcoat, which is 6.13 lbs/gal VOC (minus water) and the catalyst, which is 6.16 lbs/gal VOC (minus water). The two components individually and as applied are above the limit of 6.0 lb/gal VOC. A review of VOCs in

the stain base found that the VOC content is 2.18 lbs/gal (minus water).

In the permit, the phrase minus water also includes compounds used as organic solvents that are excluded from the definition of a VOC. Per the information supplied by Gilmore, Inc. the topcoat exceeds the permit limit established in PTI No. 36-96B, Special Condition EUWOODCOAT II.2. A Violation Notice will be issued.

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 some uncovered containers of what appeared to be solvent. Mr. Emley and I discussed that these need to be covered at all times when not in use. Jake, one of the paint operators was present and we discussed modifying old lids to accommodate a spray gun sticking out the top of a bucket. They plan to create a new procedure to ensure lids are always on solvent containers.

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

DESIGN/EQUIPMENT PARAMETERS

I 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. I suggested that when maintenance is on the roof that they inspect stacks to ensure no paint/stain particulate is getting past the filters.

Mr. Emley and I also discussed the spray guns that are being used at the facility. One type is a Kremlin HVLP, and the other is a Panther Series by C.A. Technologies. The Panther100g, is the adhesive spray gun used at the facility. It is a conventional style gun and is not considered HVLP equivalent. This is a violation of PTI No. 36-96B Special Condition EUWOODCOAT IV.2. A Violation Notice will be issued.

TESTING/SAMPLING

The permit requires testing of coatings per Method 24, or manufacturer's formulation data if prior written approval is received. The company is not using either method, but the AQD has not specifically addressed this in the past. Gilmore, Inc. shall either begin testing coatings per Method 24, or request in writing that the use of formulation data be allowed. It is noted that neither option allows the use of SDS's. The adhesive manufacturing company has requested that their specific formula be kept confidential. Gilmore, Inc. will either need to obtain that information for use in the recordkeeping or conduct testing.

MONITORING/RECORDKEEPING

The permit requires that records be maintained and calculated by the 15th day of the calendar month for the previous calendar month. This has not been done, as the company has been calculating them every quarter. This is likely due to confusion from previous requirements to submit data to AQD on a quarterly basis for one year following issuance of the PTI in 2011. As such, at this time, it will not be cited as a violation as the records were updated immediately. Mr. Emley will ensure data is entered monthly from now on.

The current recordkeeping spreadsheet contains most of the required information. I was unable to find acetone emissions separately and combined with VOC's as required, so Mr. Emley and I discussed it. We determined that Gilmore, Inc. has not been maintaining acetone emissions. Based on a cursory review, this appears to add ~ 7.5 tons to the combined total VOC and acetone emissions, bringing the approximate emission range from the reported 15.5 tons to ~23 tons. This estimation shows that the emissions are likely below the 30.0 ton limit, however, acetone needs to be added to the records. Recordkeeping is attached. This deficiency is a violation of PTI No. 36-96B Special Condition EUWOODCOAT VI.3. A Violation Notice will be issued.

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 15th day of the calendar month for the previous calendar month.

I identified some errors here, and over reporting of HAP emissions due to the fact that isopropyl alcohol

and ethyl alcohol are listed as HAPs when they are not. In December 2019, the total HAP emissions were 828.9 pounds, and of that total 233.2 were from isopropyl alcohol use. I also noticed that Gilmore is not providing a 12-month rolling total of individual or aggregate HAP emissions. The largest HAP emissions are generated by hexane, with 12-month rolling emissions at 2 tons. It appears aggregate HAP emissions are 3.6 tons per 12-month rolling time period. The permit recordkeeping spreadsheet can be updated to include 12-month rolling total emissions of 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. On April 27, 2019 all the filter bags were replaced. This unit is vented externally during the hot summer months and is directed into the plant during the winter to conserve heat. The flexible hose that connects the baghouse to the sawdust collection bin had a hole in it and sawdust was observed on the ground around the hose. I informed Mr. Emley that this was not acceptable, and he agreed to fix it immediately. Attached are before and after photos. Finally, the roll off collection bin sight glass windows also were not completely sealed and some sawdust was seeping out. Mr. Emley immediately contacted the owner of the bin, MCM Rentals, who stated they would correct the issue.

CONCLUSION

Gilmore, Inc. was in non-compliance at the time of the inspection. A Violation Notice will be issued.

NAME *April Longman*

DATE 2-10-20

SUPERVISOR *HE*