

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

B635658517

FACILITY: The Worden Group		SRN / ID: B6356
LOCATION: 199 E. 17th St., HOLLAND		DISTRICT: Grand Rapids
CITY: HOLLAND		COUNTY: OTTAWA
CONTACT: James Timyan , Production Manager		ACTIVITY DATE: 06/17/2021
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY'21 inspection to determine the facility's compliance status with respect to PTI no. 348-99 and any other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

The purpose of this report is to document findings of an onsite inspection for The Worden Group (Worden, SRN B6356) located at 199 East 17th Street in Holland, Michigan. The inspection was conducted by AQD staff Chris Robinson (CR) on June 17, 2021 to determine the facility's compliance status with the requirements of the federal Clean Air Act; Part 55 (Michigan's Air Pollution Control Rules) of Act 451 (Natural Resources and Environmental Protection Act (NREPA)); and the requirements established in Permit to Install (PTI) No. 348-99.

Due to the Covid19 pandemic AQD's interim policy requires inspections to be scheduled. CR made several attempts to schedule an inspection, however, return calls were not made within a timely manner nor was CR directed to the correct contact. Therefore, an unannounced inspection was conducted. CR met with James Timyan, Production Manager, on June 17, 2021. Proper PPE and social distancing were maintained throughout the entire inspection.

The Weather conditions on June 17, 2021 were approximately 71°F, fair with south-southwest winds at approximately 8 mph (www.weatherunderground.com). A slight paint odor was noticed near the south end of the building but was gone by the time the inspection was over.

A) Facility & Process Description

The Worden Group (Worden) is a manufacturer of wood office and library furniture. The facility is comprised of two (2) buildings, with only one (1) of the buildings housing the actual manufacturing operations.

Compliance Evaluation

1) PTI No. 348-99

Per Mr. Timyan and as noted in the previous AQD inspection report from 4/27/2017, Emission Unit EUCURTAIN has been inactive for some time. Facility records indicate that it was removed in December 2014. Therefore, compliance for this emission unit will not be discussed further.

Emission unit EUADHESIVE, comprised of two wood furniture adhesive spray booths, is subject to a VOC emission limit of 118 lbs./hr. and 38 tons per year (TPY) based upon a 12-month rolling time period as determined at the end of each calendar month (SC 2). VOCs from EUSPRAY, comprised of eight wood furniture dry filter spray booths, is limited to 118 lbs./hr. and 36 TPY per 12-month rolling time period (SC 4). The three (3) emission units (EUADHESIVE, EUCURTAIN, and EUSPARAY) have a facility-wide VOC limit of 118 lbs./hr. and 90 TPY. Any other VOC emissions from other sources at the facility also need to be calculated to ensure that the major source threshold of 100 TPY is not exceeded. This would include all emission units whether they are

permitted, exempt from permitting, or grandfathered. Based on the records provided, from June 2020 through May 2021 the maximum 12-mth rolling VOC emissions calculated for EUADHESIVE were 1.42 lbs./hr. and 0.38 tons in May 2020; for EUSPRAY they were 10.95 lbs./hr. and 10.57 tons in May 2020; and Facility-wide emissions were 12.16 lbs./hr. and 11.73 tons, also for May 2020, all of which appear to be well within the required limits.

The lb/hr calculations in the facility's records appears to be a division of the rolling 12-month total for VOC emissions divided by the rolling 12-mth total of operating hours. Although the PTI may appear to indicate that the lb/hr emission limit is based on a 12-month rolling time period, that time period should only apply to the annual tonnage limit. The lb./hr. limit should be calculated at least monthly. However, the approach taken by Worden only slightly underestimates emissions and the highest facility-wide lb./hr. emissions noted was 11.12 for the month of June 2020. With a facility-wide limit of 188 lb/hr and an individual emission limit of 118 lb./hr. each for EUADHESIVE and EUSPRAY it is not expected to alter the calculations in a manner that would lead to an emissions exceedance. The facility should start keeping records of lb./hr. VOC emissions on a monthly basis.

In addition, the entire stationary source is subject to emission limits for Hazardous Air Pollutants (HAPS) both for any individual HAP and combined HAPS. The individual HAP limit is 9.0 tpy and the combined HAP limit is 22.5 tpy based upon a 12-month rolling time period as determined at the end of each calendar month (SC 5). Records indicate that the maximum 12-mth rolling total for individual HAPs was 0.84 tons of Toluene for April and May 2021 while the maximum calculated total for combined HAPs was 1.42 tons also for April and May of 2021.

Special Condition 6 requires all VOC coating contents to be determined by Method 24 testing unless approval is given to use Manufacturer's formulation data. An approval was provided in October 2006. Data for the top three (3) coatings was provided and it does appear that the facility is using manufacturer's formulation data. Appropriate control devices such as dry filters are required to operate at all times when EUSPRAY and EHADHESIVE are in use, per discussions and observations they are. All filters are replaced on an as needed basis and appeared to be well maintained.

Special Condition 8 of the PTI requires all waste purge and cleanup solvents and coatings to be captured and stored in closed containers. There were several buckets containing waste coatings located in the facility's pump/mix room along with a closed and grounded 55-gallon drum and funnel. CR informed Mr. Timyan that any container that has waste material in it must be covered or drained into the 55-gallon drum, which had a cover over the funnel. Per follow-up conversations with Mr. Timyan this issue had been addressed.

Monthly records as required by SC 9 were provided upon request and are attached. Stack heights and diameters were not verified but appeared to be correct based on the requirements of SC 10. Stacks did not appear to be obstructed and were all discharged vertically upwards.

2) Other Applicable Rules and Regulations

The facility operates a variety of woodworking equipment for cutting, routing, drilling, sawing, and sanding. Stations are setup throughout the building. Particulate matter (PM) is controlled by three

baghouses (20,000 CFM, 30,000 CFM, and 50,000 CFM installed in 2001, 2000, and 1972, respectively). The size of these baghouses was later verified by the facility's consultant to be 20,000, 34,000 and 54,000 CFM. Per Mr. Timyan, two of the baghouses are designed such that they can be vented internally or externally allowing them to be used for assisting in building heating and ventilation, which typically only occurs during the winter months. The baghouses were operating during the inspection and appeared to be well maintained. Maintenance is conducted as needed and a log is maintained onsite. The equipment attached to these baghouses were previously claimed exempt from Rule 201 permitting requirements per Rule 282(2)(l)(vi)(C) when they are vented internally and per Rule 282(2)(l)(vi)(B) when they are vented externally. Rule 201 permitting exemptions, along with Rule 278, only address the requirement of having to obtain an air use permit. The Potential to emit (PTE) of air emissions must still be evaluated to determine if the facility could be subject to the Title V permitting program. Based on the CFM ratings of Worden's baghouses, only the 20,000 CFM baghouse could possibly use a PTI exemption, Rule 290, to restrict PTE since it is less than the 30,000 CFM flow rate required by Rule 290(2)(a)(iii)(A). However, in order to use Rule 290 the baghouse must also be designed to control PM concentrations to not more than 0.01 lbs. PM / 1,000 lbs. exhaust gas and a facility must demonstrate that this concentration can be met. The use of Rule 290 would not be appropriate for the other two baghouses since both are greater than 30,000 CFM. The next available enforceable restriction on PTE is the "Maximum allowable emission rate at operating conditions" specified in Rule 331 (Table J) for "Exhaust systems serving material handling equipment not otherwise listed in table 31" which is 0.10 lbs. PM/1,000 lbs. exhaust gas. Using this restriction and assuming 24/7 operation, the PTE for PM (assuming all is PM10) for the 24,000 and 34,000 CFM baghouses would exceed Title V's applicability threshold of 100 tons/yr. of PM10. In addition, the PTE of the 20,000 CFM baghouse would need to be added in. Since the PTE of the baghouses for PM10 exceeds 100 tpy, the AQD is highly recommending that Worden apply for a Title V Opt-out permit that contains federally enforceable restrictions on PM10 emissions.

Warden recently replaced three boilers. One is a Columbia boiler with a max heat input capacity of 4,200,000 Btu's/hour. The other two are identical Pennant Boilers with max heat input capacities of 1,499,980 Btu's/hour. Since these new boilers all have a heat input capacity of less than 10,000,000 BTU's/hr and only combust sweet natural gas they appear to be exempt from permitting requirements per Rule 282(2)(b) for fuel burning equipment that is used for indirect heating and combusts sweet natural gas. New Source Performance Standard (NSPS) Subpart Dc would not apply either since they are rated at less than 10,000,000 Btus/hour.

As noted above the facility uses a hot melt adhesive to apply edge banding. This process appears to be exempt per Rule 287(2)(i) for equipment that is used for the application of hot melt adhesive.

Records were provided for EUCleaning which indicates that the facility is claiming this emission unit is exempt from Rule 201 permitting requirements per Rule 290. EUCLEANING consists of cleaning solutions used throughout the facility uncontrolled. A spreadsheet containing the toxic screening levels for each compound indicates that they are all non-carcinogenic VOC's. Based on monthly emissions calculated from June 2020 thru May 2021, the month with the highest emissions was June 2020 with 172.25 pounds, which is well below the Rule 290 monthly limit of 1,000 pounds.

3) MAERS

The facility's 2020 emissions data submitted to MAERS in 2021 was reviewed by the AQD on May 17, 2021. No changes were made to the database as submitted. The facility should review MAERS to ensure the baghouses are being reported properly. If not, then necessary changes should be made going forward.

B) Compliance Determination

Based on the observations and discussions made during the inspection and a subsequent records review, The Worden Group appears to be in compliance with applicable air quality rules and regulations including the requirements established in PTI No. 348-99.

NAME  _____DATE 8/11/2021SUPERVISOR  _____