

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

B635639977

FACILITY: The Worden Group		SRN / ID: B6356
LOCATION: 199 E. 17th St., HOLLAND		DISTRICT: Grand Rapids
CITY: HOLLAND		COUNTY: OTTAWA
CONTACT: Ryan Fales, Cost Estimator		ACTIVITY DATE: 04/27/2017
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: The purpose of this inspection was to determine compliance with PTI No. 348-99 and all other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

On Thursday April 27, 2017 AQD Staff Kaitlyn DeVries (KD) conducted an unannounced, scheduled inspection of The Worden Group located at 199 East 17<sup>th</sup> Street, Holland, Michigan. The purpose of this inspection was to determine compliance with PTI No. 348-99 and all other applicable air quality rules and regulations.

Prior to entry to the facility, KD surveyed the perimeter for any excess odors or emissions. None were noted. KD met with Mr. Ryan Fales, Cost Estimator, who accompanied her on the tour of the facility.

### Facility 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.

### Regulatory Analysis

Worden currently operates under Opt-Out Permit No. 348-99, and is a synthetic minor source of Hazardous Air Pollutants (HAP's) and Volatile Organic Compounds (VOC's). The facility was able to Opt-Out of the wood furniture manufacturing operations NESHAP (40 CFR Part 63 Subpart JJ) due to an applicable exemption within the rule.

### Compliance Evaluation

#### *Exempt Emission Units*

The facility has several cutting, routing, drilling, sawing, and sanding stations throughout the facility. The processes are either exhausted to one of several internally vented baghouses or to one (1) of three (3) externally vented baghouses. The internally vented processes are exempt from Rule 201 permitting under Rule 285(2)(I)(vi)(B), while the externally vented baghouses are exempt under Rule 285(2)(I)(vi)(C). The three (3) externally vented baghouses, have capacities of 20,000 CFM, 30,000 CFM, and 50,000 CFM. The three (3) baghouses were installed in years 2001, 2000, and 1972, respectively. Potential to Emit (PTE) calculations, using Rule 331, Table 31 (J), 0.1 pounds of particulate matter (PM) per 1,000 pounds of exhaust gases, yielding PTE calculations of 39.42 tons PM/year, 59.13 tons PM/year, and 98.55 tons pm/year, respectively. Although the individual PTE for particulate is less than the major source threshold, AQD will formally request a thorough PTE from Worden.

Worden utilizes Rule 290 for one of their booths that uses a polyester basecoat. The attached records indicate that the facility is below the allowed limits for all pollutants.

#### *Permit No. 348-99*

The facility has a combined VOC emission limit of 90.0 (tpy) based on a 12-month rolling time period for all of the three (3) of the below mentioned emission units. Based on the attached records, the 12-month rolling emissions as of February 2017 were 9.24 tons, and the hourly emission rate was 8.26 pph.

Facility wide HAP emissions are individually limited to 9.0 tpy and aggregately limited to 22.5 tpy, both based on a 12-month rolling time period. Per the attached records, the facility aggregate HAP emissions as of February 2017 were 0.90 tons. Xylene was the individual HAP with the largest 12-month rolling emission rate, at 0.24 tons, in February 2017.

Worden has requested in October 2006, and AQD approved the use of manufacturer's formulation data in lieu of method 24 testing. Formulation data sheets for the top five (5) coatings used are attached to this report. Of the top five coatings, the highest VOC content was 5.91 lb./gal. In addition to tracking VOC content, Worden is also properly tracking HAP content of the various adhesives, stains, and lacquers, and the gallons of each coating, sealer, stain, and cleanup solvent used. All records are attached to this report.

All containers appeared to be closed, and waste properly disposed of at the time of the inspection.

Stack dimensions were not explicitly measured, but KD noted that many of the stacks were labeled with the stack number, as identified in the permit and they appeared to be of proper size.

#### EUCURTAIN

This emission unit covers the wood furniture and curtain coater and oven, however, per Mr. Fales, equipment was removed from the facility in December 2014. While emission from this unit do have specified limits of 118 pounds per hour and 30 tons per year, this emission unit will not be further evaluated since the equipment is no longer at the facility.

#### EUADHESIVE

This emission unit covers the two (2) wood furniture adhesive spray booths. The VOC emissions from this emission unit are limited to 118 pph and 38 tpy, based on a 12-month rolling time period. Based on the attached records, as of February 2017 the 12-month rolling VOC emissions were 1.08 tons, with an hourly emission rate of 5.12 pounds. KD noted some small gaps in one of the filters for the adhesive process, and suggested that the filter be changed and reminded Mr. Fales that there shouldn't be any gaps in the filters.

#### EUSPRAY

This emission unit covers any combination of the eight (8) wood furniture dry filter spray booths. The booths can be used for sealers, lacquers, or coatings. Worden has hundreds of different colors available and does the mixing of the colors on site. The filters in the booths appeared to be properly installed and maintained. Per Mr. Fales, the filters are changed weekly or monthly, depending on the use. Worden also cleans and sweeps the booths on a daily basis. This emission unit is limited to 118 pph and 36 tpy, based on a 12-month rolling time period. Based on the attached records, the 12-month rolling VOC emissions as of February 2017 were 7.65 tons and the pound per hour emissions were 6.84.

#### Compliance Determination

AQD will be requesting updated PTE calculations for Particulate, VOC, and HAP emission from the facility since the PTE for the individual baghouses were close to major source thresholds, for particulate, and the additional exempt booths, (Rule 290) could push the VOC and/or HAP PTE close to that threshold as well. AQD will request the PTE via e-mail.

However, based on the observations made during the inspection and a subsequent review of the records, it The Worden Group is in compliance with PTI No. 348-99 and all applicable air quality rules and regulations.

NAME Karlyn Owen DATE 6/12/2017 SUPERVISOR [Signature]