

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

A593748491

FACILITY: Howard Miller Company		SRN / ID: A5937
LOCATION: 860 E Main St, ZEELAND		DISTRICT: Grand Rapids
CITY: ZEELAND		COUNTY: OTTAWA
CONTACT: Jerry Winters, Engineering Manager		ACTIVITY DATE: 04/11/2019
STAFF: April Lazzaro	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, scheduled inspection and met with Jerry Winters, Engineering Manager. Howard Miller Company operates pursuant to Renewable Operating Permit (ROP) No. MI-ROP-A5937-2015.

FACILITY DESCRIPTION

Howard Miller Company manufactures wood furniture, including clocks from hardwoods and nursing home décor out of a variety of types of manufactured wood products. The facility currently operates one shift, five days per week and has less than 100 employees. Operations include wood working and associated equipment, three coating lines, a wood waste fired boiler, natural gas fired boilers and a new exempt spray booth and vinyl wrap line. The Environmental Protection Agency's, "Once in Always In" policy has been rescinded and the company is in the process of determining their Potential to Emit (PTE) for all pollutants and are considering eliminating the ROP. In 2003, Howard Miller Company obtained an Opt-out Permit to Install to limit Hazardous Air Pollutants to synthetic minor limits. As such, the facility boilers are subject to 40 CFR JJJJJJ for Area Sources. The AQD does not have delegation for the area source regulations and as such, these were not evaluated at the time of the inspection.

This facility is a major source of Volatile Organic Compounds (VOC).

EUWOODEQUIP1-3 are subject to the Compliance Assurance Monitoring (CAM) provisions of 40 CFR Part 64. EUSILO is contained in the CAM Plan, however based on the 6,000 CFM size it is unclear if the Potential to Emit is actually over 100 tons PM-10 per year. This could be evaluated during the next ROP renewal cycle. There is also a miscellaneous emission unit for Rule 331 that appears unnecessary and is also included in the CAM Plan, but does not exist.

One cold cleaner was confirmed during the inspection.

The facility may be a synthetic minor for particulate matter due to limits being incorporated into the original ROP issued in 1999 for EUWOODEQUIP1.

The emission unit named EUSPRAYBOOTH1 contains eleven spray booths and accompanying ovens that were installed in 1966. During the inspection, Howard Miller Company was unable to identify what booths are contained in this emission unit specifically. Howard Miller Company should identify and label all booths that are a part of this emission unit in order to maintain their grandfathered status. This will be conducted as part of the PTE determination.

The emission unit named EUSPRAYBOOTH2 contains four spray booths that were originally permitted in 1977. These booths were originally permitted with a 6" deep water tray for particulate control. None of the booths observed on site were equipped with a water tray, and Howard Miller Company was unable to identify what booths are contained in this emission unit specifically. Howard Miller Company should identify and label all booths that are a part of this emission unit to clarify equipment going forward. This will be conducted as part of the PTE determination.

COMPLIANCE EVALUATION

SOURCE-WIDE CONDITIONS

The HAP limitations are contained in the Source-wide conditions of this ROP.

Emission limits apply to each individual Hazardous Air Pollutant (HAP) limited to less than 9.0 tons per 12-month rolling time period. Aggregate HAPs are limited to less than 22.5 tons per 12-month rolling time period. The company utilizes formulation data to obtain HAP and volatile organic compound (VOC) information on all materials. A current chemical listing was requested and obtained and the recordkeeping conducted contains all required information in an acceptable format. Howard Miller Company is currently keeping track of aggregate volatile HAP emissions, and total HAP emissions. Reported aggregate volatile HAP emissions for the 12-month rolling time frame of March 2018-February 2019 are 2.51 tons. The highest reported individual HAP was toluene at 1.19 tons for the 12-month rolling time frame of March 2018-February 2019.

EUWOODBOILER1

This wood waste fired boiler operates during cold weather to provide plant heat, was in operation at the time of the inspection. Howard Miller Company processes hardwoods and various panels including plywood, mdf, hdf, hardboard, pegboard and particle board. These panels may have hpl, melamine or veneer on them. The large pieces of hardwood waste are burned in the boiler. The large pieces of manufactured wood waste gets disposed, however the saw dust goes into the silo for fuel for the boiler. The boiler has an emission limit of 0.50 pounds of particulate matter per 1,000 pounds exhaust gases. Compliance with this requirement is evaluated per visible emissions readings and the preventative maintenance plan (PMP). The visible emissions logs were observed in the maintenance shop which is run by Travis Hanges and his staff. All readings appeared accounted for. There is currently no visible emission limit in the permit, although pursuant to Rule 301 a 20% limit would apply. This visible emission limit should be added to the ROP during the next renewal cycle to make the permit enforceable.

EUSILO

The silo operates in conjunction with EUWOODBOILER1. The silo is equipped with a small 6,000 CFM baghouse at the top of the unit. This silo is subject to an emission limit of 0.10 pounds of particulate matter per 1,000 pounds exhaust gases. Compliance with this requirement is evaluated per visible emissions readings and the preventative maintenance plan (PMP). The visible emissions logs were observed in the maintenance shop which is run by Travis Hanges and his staff. All readings appeared accounted for. There is currently no visible emission limit in the permit, although pursuant to Rule 301 a 20% limit would apply. This visible emission limit should be added to the ROP during the next renewal cycle to make the permit enforceable. Mr. Winters explained that this silo has to be monitored carefully for pressure drop during operations, and they prefer to keep it just very slightly negative so that there is no blow back of sawdust in the system when feeding the boiler. This can cause issues with the combustion chamber since the silo contains sawdust. As such, the CAM Plan reflects the pressure drop minimum of a $-1.0''\text{H}_2\text{O}$.

FGWOODEQUIP

This flexible group includes the four existing baghouses. Pursuant to the PMP, the facility is conducting maintenance on the units and documenting it. Annually, an outside company comes to inspect the units and make recommendations for repairs. It is identified that Howard Miller Company does not always conduct all the recommended bag replacements. Visible emissions readings that are taken daily by certified visible emissions readers have not identified any visible emissions. No visible emissions were noted at the time of the inspection. Additionally, in the future the CAM Plan needs to be changed because the range of $-1.0''$ - $-10.0''$ H₂O is not appropriate for these units. Typical baghouse guidelines indicated that baghouses operating in the negative have either holes in the bags or severe air infiltration. The CAM Plan is further discussed in FGPMCAMPLAN compliance evaluation below. The maintenance area has a computer terminal that is logged into the Building Management System (BMS). On this system, the baghouse pressure drops are shown and continuously monitored. This is not a recording device, and maintenance staff takes a daily pressure drop recording and writes it on the log book. Additionally, maintenance staff manually performs shake downs of the baghouses at least twice per day.

EUWOODEQUIP1 (Alanco) is the newest and largest baghouse installed in 1999 at 85,521 CFM used for controlling particulate emissions from wood working equipment. Pressure drop at the time of the inspection was fluctuating between 0.0 and 1.23'' H₂O. Howard Miller has had the maintenance company in and plan to change the line and gauge to this unit. We discussed how readings of this nature are a

flag and should be monitored closely and rectified. Howard Miller Company did not obtain a Permit to Install for this baghouse. In 1999 AQD staff used Rule 213(2)(d) to implement a synthetic minor limit on this baghouse through the ROP process. This method bypassed Rule 201 permit applicability as this unit should have obtained a Permit to Install (PTI) prior to installation. The limit in the permit is 0.01 pounds of particulate matter per 1,000 pounds exhaust gas which is evaluated by using visible emissions as a surrogate.

EUWOODEQUIP2 appears to consist of two emission units, (Wheelabrator 1 and 2) but for some reason is listed as one. This consists of the east wheelabrator and the west wheelabrator, both of which operate at 33,500 CFM each and are used for controlling particulate emissions from wood working equipment. Pressure drop of the east unit was 1.60" H₂O and the pressure drop of the west unit was 1.66" H₂O at the time of the inspection. These should be broken up into separate emissions units during the next ROP renewal cycle or permitting exercise to make the permit accurate. The limit in the permit is 0.01 pounds of particulate matter per 1,000 pounds exhaust gas which is evaluated by using visible emissions as a surrogate.

EUWOODEQUIP3 consists of one 75,000 CFM baghouse (Duststar) for controlling particulate emissions from wood working equipment. Pressure drop at the time of the inspection was 1.70" H₂O. The limit in the permit is 0.01 pounds of particulate matter per 1,000 pounds exhaust gas which is evaluated by using visible emissions as a surrogate.

There are no stack requirements for any of the four baghouses. Additionally, the sizes of the baghouses as detailed above are copied out of the ROP. Mr. Winters indicated that the correct sizes may be a bit different. This should be verified for accuracy if a smaller size is used for the PTE calculations.

FGNESHAPJJ

This flexible group contains the equipment listed in EUSPRAYBOOTH1 (11 spray booths), EUSPRAYBOOTH2 (4 spray booths) EURULE287 (new booth/laminate line) and EURULE290 (there is no Rule 290 equipment currently). This facility is an existing source using the averaging approach, with an emission limit of 1.0 lb VHAP/lb solids as applied. As applied means that the VHAP must include any thinning solvents used and applied, and these values are included in the weighted average.

The lb VHAP/lb solids data was requested and reviewed. (see attached) The reported pounds of VHAP per pounds of solids, on a weighted average is 0.25 which indicates compliance with the NESHAP.

Recordkeeping for the various work practice implementation plans, including the operator training program, cleaning solvent accounting system and other requirements were observed in notebooks maintained on the plant floor. Operator training is completed in May each year and the record book was observed and found to be up-to-date. All recordkeeping appeared in order.

FGPMCAMPLAN

All baghouses at the facility are included in the CAM Plan, including the small one on the silo. Each is equipped with a differential pressure gauge as required and is monitored through the Building Management System. Recordkeeping of the daily logs were observed on site, and appeared in order. As previously mentioned, the pressure drop of a typical baghouse should not be in the negative range. As such, this will be reevaluated and changed during the next ROP renewal cycle or permitting exercise. Recordkeeping for the daily visible emissions check was observed on site, and appeared in order.

The permittee is maintaining record of data as required. EUMISC331 is listed as part of the CAM Plan, although there are no sources of PM or an emission unit with equipment for this. It should be removed during the next ROP renewal cycle or permitting exercise.

FGRULE287(C)

There is currently one emission unit operating per Rule 287(2)(c), which is the spray booth and vinyl wrap system. Usage was maintained in a log next to the booth, and had a maximum monthly usage of less than 54 quarts, and an average of less than 8 gallons.

FGRULE290

There are currently no Rule 290 exempt emission units on site. This flexible group will be removed during the next ROP renewal cycle if there are still none at the facility.

FGCOLDCLEANERS

There is currently one cold cleaner on site. The unit was discussed, and is monitored and serviced by an outside facility.

FGAREASOURCEBOILER- Existing Biomass

The AQD does not have delegated authority for the area source boiler regulations. As such, it was not evaluated for compliance during this inspection.

COMPLIANCE SUMMARY

Howard Miller Company was in compliance at the time of the inspection.

NAME *April Longman*

DATE 4-12-19

SUPERVISOR *[Signature]*