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

N794155887

FACILITY: Rec Boat Holdings - Cabinetry		**SRN / ID:** N7941
LOCATION: 701 6TH ST, CADILLAC		**DISTRICT:** Gaylord
CITY: CADILLAC		**COUNTY:** WEXFORD
CONTACT: Trent Burch , EHS		**ACTIVITY DATE:** 10/22/2020
STAFF: Sharon LeBlanc	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: FY 2021 scheduled site inspection and records review. sgl		
RESOLVED COMPLAINTS:		

On October 22, 2020, AQD District Staff conducted a site inspection of the Rec Boats Cabinetry Facility located at 701 6th Street, Cadillac, Wexford County, Michigan. The referenced Facility constructs cabinetry required for boat construction/completion at the Rec Boats Cruiser (N1470) or Sport and Engineering (N1328) Facilities. The Facility operates an adhesive coating line under Permit to Install (PTI) Number 387-07.

The most recent site inspection was September 27, 2011. Mr. Trent Burch answered questions regarding the Facility at the time of the inspection.

Weather conditions at the time of the inspection included overcast skies, temperatures in the low 40's.

FACILITY

The Cabinet facility is a single building located at the SE corner of the intersection of 6th Street and 8th Avenue, Cadillac, Michigan. The Facility is located at what is the approximate southern boundary of an industrial area of the City of Cadillac, which is bounded to the north by 13th street and to the south by Wright Street. Nearby residential properties are located no closer than 0.25-mile to the south and 0.38-mile to the east of the Facility.

The Facility consists of material and template storage on the north end, with equipment and construction work areas and product storage. Equipment onsite consists of several pieces of woodworking equipment (CNC router, table saws, drill presses, etc.) for dimensioning wood and plastic for trim inside of the boats manufactured at the other Rec Boat facilities.

The equipment is controlled by a Donaldson/Torit dust collector which returns the exhaust air back inside the plant. The dust and wood chips captured by the baghouse is blown into a large enclosure. Once filled, the enclosure is hauled away. At the time of the inspection it appeared that the enclosure was getting close to being filled. Sawdust could be seen in the small glass windows located at the top of the enclosure.

The potential for fugitive emissions from the process is minimal. The interior of the facility was very clean with no evidence of dust, which indicates proper baghouse performance, since it is exhausted indoors. Also, the differential pressure across the baghouse was 1.4 inches water gauge.

Once the wood is cut to size and pieces have been assembled, a veneer is applied. Adhesive is applied to the veneer, which is then placed on the plywood. A single adhesive (3M ™ Hi-Strength Laminating 92 Cylinder Spray Adhesive) is used at the Facility and is applied from a pre-mixed, 140 lb cylinder. A sidewall fan with filter is present to provide capture. It is important to note that this is not a continuous line and that adhesive application is conducted for only a very limited amount of time during daily operations.

PERMITS

The Facility operates under PTI 380-07, issued on December 20, 2007. The document identifies two emission units. An adhesive line (EUADHESIVE) in which adhesive material is sprayed to adhere wood to wood and/or wood to laminate and a Donaldson/Torit dust collector (EUDUSTCOLLECTOR).

In addition, one stack (SV-ADHESIVE) is associated with the site. The stack was not readily visible at the time of the site inspection.

COMPLIANCE

A review of readily available files indicated no compliance issues or complaints with respect to the Facility. At the time of the September 27, 2011, site inspection the Facility was determined to be in compliance with it's permit conditions.

Compliance for the Facility is based on compliance with permit conditions under PTI 387-07.

Emission Limits - Emission limits for the Facility are limited to 10 ton VOCs per year (12-month rolling time period) for EUADHESIVE (SC 1.1a). Records provided for the period of October 2019 through September 2020, indicated VOC emissions ranging from 21-42 lbs per month, with a 12-month rolling total of 336 lbs of VOC. Well below the permit limits.

No Emission limits are associated with EUDUSTCOLLECTOR. No visible emissions were noted at the time of the site inspection which would indicate issues with the EU operation.

Process/Operational Limits - With respect to EUADHESIVE the permittee is required to:

- capture all waste adhesive, store the material in enclosed containers, and dispose of all waste adhesive in an acceptable manner in compliance with state and federal regs (SC 1.2).

- handle all VOC and Hap containing material in a manner to minimize the generation of fugitive emissions (SC 1.3).

- operate EUADHESIVE only when all respective exhaust filters are installed, maintained and operated in a satisfactory manner (SC 1.4)

The Facility reports that the 3M™ adhesive product used comes in a pre-mixed 140 lb cylinder that staff hooks up to. Therefore, there are no open containers, no fugitive emissions, and any waste adhesive is captured by the filter in compliance with permit conditions.

Prior to operation of any cutting and grinding operations associated with EUDUSTCOLLECTOR, the permittee is required to install, maintain and operate a fabric filter baghouse (SC 2.1), and a gauge to measure the pressure drop across the baghouse (SC 2.2). In compliance with the permit, the Facility operates a Donaldson/Torit dust collector with differential pressure gauge.

Testing – Under PTI 387-07, the permittee is required to determine the VOC content using federal reference test method 24 or with prior written approval VOC content may be determined using the manufacturer's formulation data sheet (SC 1.5).

The Facility reports using the manufacturer data to determine VOC content of the single

adhesive used onsite. A review of data presented indicated that the Facility uses an emissior factor of 0.6 lb VOC/ lb adhesive. Which is consistent with the Manufacturer data sheet.

Discussions with the previous inspector indicate that written authorization to use the manufacturer data rather than Method 24 had most likely not been given, but that inspectors discretion had been used based on the extremely low VOC emissions associated with the site. Written authorization for the Facility to use the data has been prepared and issued to the Facility following onsite discussions during the site inspection and electronic correspondence requesting the authorization.

No testing requirements exist for EUDUSTCOLLECTOR.

Recordkeeping/Reporting – Under PTI 387-07, the facility is required to:

- complete all required calculations in a format acceptable to AQD District Supervisor by the 15th day of the calendar month for the previous calendar month (SC 1.6)
- maintain a current listing from the manufacturer of the chemical composition of each adhesive, including the weight percent of each component. (SC 1.7)
- Keep the following records on a monthly basis (SC 1.8)
    - Gallons (with water) of each adhesive used
    - VOC content (minus water and with water) for each adhesive used
    - VOC mass emission calculations determining monthly emissions
    - VOC mass emission calculations determining the 12-month rolling total emissions

As previously indicated, the Facility operates using only one adhesive, which arrives pre-mixed in a 140 lb pressurized cylinder, which is connected to a sprayer and applied. Records provided by the Facility as part of the October 22, 2020, site inspections were in compliance with permit conditions.

A review of available records indicated that for the period of February 2009 through November 2011, the Facility was submitting monthly emissions and differential pressure reports. The September 27, 2011, site inspection report indicated that "*Records submitted to AQD on a monthly basis indicates that the VOC emissions from the adhesive application is approximately 0.46 tons per 12 month rolling time period, which is well below the limit of 10 tons per 12 month rolling time period.*"

It should be noted that no operating range was identified in the PTI, nor any recording frequencies for the differential pressures. Records provided during the site inspection were monthly readings. Data provided appeared to indicate an operating range from 0.4 – 0.8 inches of water. A differential pressure of 1.4 inches of water was noted at the time of the site inspection.

Stack Restrictions - EUADHESIVE has one stack associated with the EU. It is required to be a minimum of 4 ft above ground level and a maximum of 40 inches. As previously indicated that fan and filter associated with the EU is a sidewall mount and is consistent with the stack requirements.

SUMMARY

On October 22, 2020, AQD District Staff conducted a site inspection of the Rec Boats Cabinetry Facility located at 701 6th Street, Cadillac, Wexford County, Michigan. The referenced Facility constructs cabinetry required for boat construction/completion at the Rec Boats Cruiser (N1470) or Sport and Engineering (N1328) Facilities. The Facility operates an adhesive coating line under Permit to Install (PTI) Number 387-07.

The Cabinet facility is a single building located at the SE corner of the intersection of 6th Street and 8th Avenue, Cadillac, Michigan. The Facility is located at what is the approximate southern boundary of an industrial area of the City of Cadillac, which is bounded to the north by 13th street and to the south by Wright Street. Nearby residential properties are located no closer than 0.25-mile to the south and 0.38-mile to the east of the Facility.

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Based upon the on-site inspection and review of records, the AQD has determined the facility to be in general compliance with Permit to Install No. 387-07.

NAME _____ DATE _____ SUPERVISOR _____

Sharon LeBlanc

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Shane Nixon

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