

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

P086273072

|   |                                   |                           |
|---|-----------------------------------|---------------------------|
| FACILITY: Harvest Oak Manufacturing   |                                   | SRN / ID: P0862           |
| LOCATION: 804 North Matteson Street, BRONSON  |                                   | DISTRICT: Kalamazoo       |
| CITY: BRONSON   |                                   | COUNTY: BRANCH            |
| CONTACT: Jamie Brock , President  |                                   | ACTIVITY DATE: 02/29/2024 |
| STAFF: Jared Edgerton   | COMPLIANCE STATUS: Non Compliance | SOURCE CLASS: SM OPT OUT  |
| SUBJECT: An unannounced air quality inspection to determine compliance with Permit to Install No. 143-17A |                                   |                           |
| RESOLVED COMPLAINTS:  |                                   |                           |

On February 29, 2024, Air Quality Division (AQD) staff (Jared Edgerton and Monica Brothers) arrived at 804 North Matteson Street, Bronson Michigan, at 11:00 AM to conduct an unannounced air quality inspection of Harvest Oak Manufacturing. AQD staff met with EPA staff, Emma Leeds, Karina Kuc, and Aileen Drum to perform a joint inspection. Aileen was the lead inspector and asked the majority of questions during the walkthrough of the facility. Staff met with Larry Covey, Operations Manager. James Brock, Owner of Harvest Oak, was not present during this inspection. Mr. Covey answered all operations questions.

This facility is operated by five staff, Monday through Friday, 7 AM to 3 PM. Harvest Oak is a wood manufacturer that coats, and treats products to be used in cabinets, molding, and paneling. Some of the wood types used in production are maple, oak, and poplar. Some molds need to be finished by the woodworking portion of the facility. Harvest Oak is a synthetic minor for hazardous air pollutants (HAPs) as established in Permit to Install (PTI) No. 143-17A. Within the PTI, there are two flexible groups. FG-WOODWORKING consists of two woodworking lines (EU-WOODWORKING1, EU-WOODWORKING2), and particulate matter emissions (PM) from each line are controlled by an internal return-air bagfilter system. FG-COATING consists of five lineal spray lines (EU-LL1- EU-LL5), one spray coating booth (EU-SB1), and cleanup operations. Particulate matter emissions are controlled by properly maintained dry air filters.

#### Inspection Walkthrough:

AQD and EPA staff met with Mr. Covey in a conference room to ask introductory questions about the facility, as well as recordkeeping and operations questions. After Mr. Covey answered all questions, the walkthrough began in the coating room. Four coating lines and the spray booth were observed in this room. Due to the inspection starting around the noon lunch hour, staff were not operating any of the coating or woodworking lines. Staff were led to the adjacent room that houses FG-WOODWORKING. AQD staff inspected the bagfilters used to control PM emissions. The bagfilters are internally vented. Three bags were filled about halfway with minor amounts of saw dust on the ground. Mr. Covey stated that bags are replaced when fully filled. It appeared to staff that the woodworking lines were maintained properly. Other woodworking related machines were observed in this area, which are considered exempt under Rule 285(2)(l)(vi)(B).

Staff walked back into the coating room and observed the spray booth area. This booth was essentially two booths put together and was located in the corner of the coating room. Staff noticed that the booths had dry air filters attached to the external exhaust system. These filters were inspected by staff and it was observed that multiple filters did not fully cover the exhaust ports on the wall. These holes were large enough to allow fugitive particulate matter to be released in the ambient air, due to this EU-SB1 was considered non-compliant. The tour continued to another building across the street which housed coating line EU-LL5. Mr. Covey ran the line to demonstrate how the coating is applied, boards go across automatic sprayers that apply the paint. Staff asked where the facility gets the stains, and paint from. Mr. Covey stated that all material is purchased from Shermin Williams. On the back wall of the building, buckets of different resins, stains, and paints were stored. After the demonstration, operators came back from lunch to begin work. Staff left the building and were led back to the first building that houses EU-LL1 – LL4. Staff walked past the four lines, which were now in operation. The lines were spraying stain on different shape molding. Before leaving the room, AQD District Supervisor, Monica Brothers asked to see the filters on the coating lines. Mr. Covey opened the filter doors to EU-LL1, and inside a filter could be seen completely caked with old spray material. The filter was black with coating, and staff initially couldn't see a filter in the containment area. Staff then asked Mr. Covey to show the rest of the coating lines' air filters. EU-LL2 had no filter inside the machine, EU-LL3 had a filter inside that had begun to disintegrate, and EU-LL4 was similar to EU-LL1 with its filter being completely filled with black spray material. Due to the poor condition of the dry filters, emissions from the coating lines are escaping the building to the ambient air. EU-LL1 though EU-LL4 are deemed non-compliant because the filters were not maintained and installed in a satisfactory manner.

EPA and AQD staff concluded the tour in the conference room. EPA staff stated that they would follow up with Mr. Covey with a record review in the following months. AQD staff received these records from Ms. Drum on April 17, 2024. A month later, EPA allowed AQD to take the lead on the inspection, and informed staff that the EPA would no longer be involved with the case. On May 17, 2024, AQD staff sent a records request email to the facility for additional information, due to not receiving enough records to determine compliance during the initial EPA records request. Records were received on time, and the result of the review is listed below.

#### Conclusion of Inspection / Record Request Determination:

At the time of the inspection, based on what was observed during the walkthrough, multiple emission units appeared to be non-complaint with Permit No. 143-17A. This permit contains design and equipment parameters that are required to be met by the facility. In FG-COATING, EU-LL1, EU-LL2, EU-LL3, EU-LL4, and EU-SB1 were found to be in violation of Rule 336.1910 and special condition IV.1. EU-LL5 did not receive a particulate matter filter inspection during the walkthrough of the facility. This emission unit's compliance status is unknown but appeared compliant on the walkthrough. EU-LL1 through EU-LL4 violations were the result of poorly maintained filters. EU-SB1 was due to holes in the coverage of the filters on the wall. While the filters were still in a condition to prevent some particulate emissions, filters must be properly installed in a manner so as to leave no gaps in the coverage. FG-WOODWORKING appeared to be operating in a satisfactory manner in accordance with the permit. Records were requested for the last two years.

#### Records for FGCOATING:

The permittee shall keep the following information on a monthly basis for FG-COATING:

1. Gallons (with water) of each material used.
  - Appears compliant? – Yes. Record is being kept monthly and is satisfactory.
2. VOC content (minus water and with water) of each material as applied.
  - Appears compliant? – Yes. Record is being kept monthly and is satisfactory. Record has VOC content with water, and minus water. Usage is below the limit.
3. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - Appears complaint? – Yes. Records are kept monthly and are satisfactory. VOC emission are below the 20.0 tpy limit.
4. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - Appears complaint? – Yes. Records are kept on a 12-month rolling time period and are satisfactory.
5. Acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
  - Appears complaint? – Yes. Records are kept in a satisfactory manner and are below the limit of 15 tpy.
6. Acetone mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - Appears complaint? – Yes. Records are kept on a 12-month rolling time period and are below the limit of 15 tpy.

The permittee shall keep the following information on a daily basis for FG-COATING:

Five random days were selected by the facility and reviewed by AQD staff.

1. Gallons of each acetone (CAS No. 67-64-1) containing material used.
  - Appears compliant? – Yes. Facility is keeping records on a daily basis. Records are below the daily limit of 374.2 lb/day.
2. Gallons of each n-butyl acetate (CAS No. 123-86-4) containing material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory.
1. Gallons of each heavy aromatic solvent naphtha (CAS No. 64742-94-5) containing material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Records are below the emission limit of 23.3 lbs/day.
2. Where applicable, gallons of each acetone containing material reclaimed.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. There is no limit for gallons reclaimed
3. The acetone content in pounds per gallon of each material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the daily limit of 374.2 lb/day.
4. The n-butyl acetate content in pounds per gallon of each material used.

- Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the daily limit of 450.3 lb/day.
- 5. The heavy aromatic solvent naphtha content in pounds per gallon of each material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the daily limit of 23.3 lb/day.
- 6. Acetone mass emission calculations determining the daily emission rate in pounds per calendar day.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the limit of 374.2 lb/day.
- 7. n-Butyl acetate mass emission calculations determining the daily emission rate in pounds per calendar day.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the limit of 450.3 lb/day.
- 8. Heavy aromatic solvent naphtha mass emission calculations determining the daily emission rate in pounds per calendar day.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the limit of 23.3 lb/day.

The permittee shall keep the following information on a monthly basis for EU-LL1, EU-LL2, EU-LL3, EU-LL4, and EU-LL5, each separately:

1. Gallons (with water) of each material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory.
2. VOC content (minus water and with water) and acetone content of each material as applied.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the limit of 18.0 tpy.
3. VOC and acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals were below the limit of
4. VOC and acetone mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

All record requirements stated below are being kept with the FG-COATING monthly requirements. Records were reviewed and being kept in a satisfactory manner.

The permittee shall keep the following information on a monthly basis for FG-COATING, each separately:

1. Gallons of each naphthalene (CAS No. 91-20-3) containing material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
2. Gallons of each formaldehyde (CAS No. 50-00-0) containing material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
3. The naphthalene content in pounds per gallon of each material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
4. The formaldehyde content in pounds per gallon of each material used.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
5. Naphthalene mass emission calculations determining the monthly emission rate in tons per calendar month.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
6. Formaldehyde mass emission calculations determining the monthly emission rate in tons per calendar month.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.
7. Naphthalene mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.

8. Formaldehyde mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - Appears compliant? – Yes. Records are being kept and are satisfactory. Totals are below the limit of 38.4 lbs/yr.

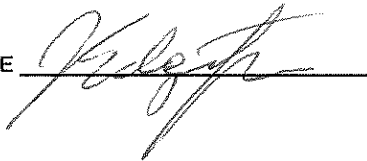
**Records for FG-FACILITY:**

The permittee shall keep the following information on a monthly basis for FGFACILITY:

1. Gallons or pounds of each HAP containing material used.
  - Appears compliant? – Yes. Records were reviewed and are being kept in a satisfactory manner.
1. Where applicable, gallons or pounds of each HAP containing material reclaimed.
  - Appears compliant? – Yes. Records were reviewed and are being kept in a satisfactory manner.
2. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
  - Appears compliant? – Yes. Records were reviewed and are being kept in a satisfactory manner.
3. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
  - Appears compliant? – Yes. Records were reviewed and are being kept in a satisfactory manner. Totals are below the individual HAP limit of less than 8.9 tpy and the aggregate HAP limit of less than 22.4 tpy.
4. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.
  - Appears compliant? – Yes. Records were reviewed and are being kept in a satisfactory manner. Totals are below the individual HAP limit of less than 8.9 tpy and the aggregate HAP limit of less than 22.4 tpy.

After reviewing all of the records required by the facility to be kept, Harvest Oak Manufacturing appears to be compliant with the monitoring and record keeping special conditions set in Permit No. 143-17A. However, during the on-site walkthrough AQD staff found multiple violations regarding the particulate matter dry filters used in FG-COATING. The facility is determined to be non-compliant for Special Condition IV.1. A violation notice will be sent to the facility regarding these issues. AQD staff concluded the inspection at 2:25 PM. -JLE

NAME



DATE

8-15-24

SUPERVISOR

