

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

B860331964

|   |                               |                           |
|---|-------------------------------|---------------------------|
| FACILITY: JELD-WEN Interior Door - Grand Rapids             |                               | SRN / ID: B8603           |
| LOCATION: 4200 ROGER B CHAFFEE MEMORIAL BLVD., GRAND RAPIDS |                               | DISTRICT: Grand Rapids    |
| CITY: GRAND RAPIDS  |                               | COUNTY: KENT              |
| CONTACT: Gary Barton , Maintenance Manager                  |                               | ACTIVITY DATE: 10/28/2015 |
| STAFF: David Morgan   | COMPLIANCE STATUS: Compliance | SOURCE CLASS: SM OPT OUT  |
| SUBJECT:  |                               |                           |
| RESOLVED COMPLAINTS:  |                               |                           |

At 11:00 A.M. on October 28, 2015, Air Quality Division staff Dave Morgan conducted an unannounced scheduled inspection of Jeld-Wen Interior Doors located at 4200 Roger B. Chaffee SE, in Wyoming. The purpose of the inspection was to determine the facility's compliance with Permit to Install (PTI) Nos. 322-89 and 117-11 as well as state and federal air pollution regulations. Accompanying staff on the inspection was Gary Barton, Maintenance Manager. Additional information was provided by Blaine Kussatz, Regional Environmental Manager.

#### FACILITY DESCRIPTION

This facility fabricates interior and exterior doors for the residential housing market. The door manufacturing process consists of adhering purchased door "skins" to a core substrate and finishing the edges. The door core construction material includes engineered/compressed fiber, wood and other manufactured wood board. The company is considered a synthetic minor source for volatile organic compounds (VOC) which are limited in General PTI No. 117-11.

#### COMPLIANCE EVALUATION

##### **Woodworking Equipment and Dust Collection:**

Throughout the plant there are various routers, sanders, planers, saws, and other woodworking equipment that are routed to one of three baghouse systems. These wood working operations are permitted under PTI No. 322-89. The three baghouses are all Carter-Day and are rated at 26,207 CFM/100 HP; 29,697 CFM/125 HP; and 45,644 CFM/200 HP. At the time of the inspection the equipment appeared to be operating properly and well maintained. The company monitors the pressure drop of each unit to determine when to change the bags or determine if there are maintenance problems. Pressure drops ranged from 1.2 inches of H<sub>2</sub>O to 2.8 inches of H<sub>2</sub>O. The company typically changes bags when the pressure drop is around 4.5 inches of H<sub>2</sub>O. The company also does a monthly visual leak check.

Collected dust is contained in roll-off containers and sent off site for recycling.

The company is meeting the 0.01 lb/1000 lb particulate limit in the permit by maintaining and operating the equipment in a satisfactory manner.

##### **Roll Coaters:**

There are six roll coaters used to adhere wood skins to the door substrate. The adhesive is a water-based adhesive, similar to Elmers Glue, with a VOC content of 0.009 lbs/gallon. After the glue is applied and door pieces attached, the doors are stacked and then put under pressure for curing. The adhesive is air dried. Roll coaters were installed as follows; October 1975, August 1983, April 2004, June 2014 and September 2014.

##### **Finishing Operations:**

There are four prime spray booths at the facility used to apply a primer coating to the edge of doors. These booths are identified as the Edge Prime Line, the Edge Finish Line, and the Custom Carved Line.

The Edge Prime Line consists of two spray booths across from one another used to apply a primer coat to the edge of high-volume door products. One booth had a Graco Silver Plus air-assisted airless gun and the other booth had a Graco Air Pro air spray gun. Each booth had a dry filter mat that is changed approximately once every two weeks. Each booth also has a manometer to help determine when the filters need changing.

The Edge Finish Line consists of one spray booth used to apply a primer coat. This booth consisted of a Graco G40 air-assisted airless gun. The booth had a dry filter mat that is changed approximately once every two weeks.

The Custom Carved Line was for the application of water-based paint on custom carved doors, however, this

booth has been used primarily as an additional primer booth using the same material as the Edge lines. The booth consisted of a Graco Silver Plus spray gun. The booth had a mat filter installed which is also changed at least every two weeks. The company is planning on removing the custom carved door line in the near future.

It is noted the company is using some Graco spray guns that are not considered HVLP. However, the company provided additional information (attached) from the manufacturer which demonstrates that if a Graco air-assisted airless gun is used, the transfer efficiency would be equivalent or better than HVLP, which is acceptable. The company is in compliance provided it continues to use HVLP spray guns or guns with equivalent or better transfer efficiency.

The company is maintaining all necessary records to demonstrate compliance with the requirements with PTI No. 117-11. From October 2014 through September 2015, records show the following:

| Emission Unit         | Actual    | Limit   | Compliance |
|-----------------------|-----------|---------|------------|
| Edge Finish Line      | 249 lbs   | 10 tons | Y          |
| Edge Prime Line 1     | 1,944 lbs | 10 tons | Y          |
| Edge Prime Line 2     | 917 lbs   | 10 tons | Y          |
| Carved Line           | 433 lbs   | 10 tons | Y          |
| Adhesive Roll Coaters | 1,500 lbs | 10 tons | Y          |
| Ink                   | 4 lbs     | NA      | Y          |
| Total                 | 2.5 tons  | 30 tons | Y          |

**Waste wood furnace:**

A waste wood furnace is on site but the unit is disabled and inoperable. All wood waste is now recycled. The room is being used for storage.

**Miscellaneous:**

The company has various printing stations which are exempt under Rule 285(l)(ix).

**SUMMARY**

Jeld-Wen is in compliance with all applicable requirements. Attached are records obtained during the inspection.

NAME



DATE

11/24/15

SUPERVISOR

PARB