

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

N734762983

<b>FACILITY:</b> Lakeland Mills, Inc.		<b>SRN / ID:</b> N7347
<b>LOCATION:</b> 1 LAKELAND PLACE, EDMORE		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> EDMORE		<b>COUNTY:</b> MONTCALM
<b>CONTACT:</b> Calvin Hunt , Vice President		<b>ACTIVITY DATE:</b> 05/04/2022
<b>STAFF:</b> Scott Evans	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> On-site inspection to assess compliance with applicable air quality rule and regulations.		
<b>RESOLVED COMPLAINTS:</b>		

### Introduction

On Wednesday, May 4, 2022, State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) Staff member Scott Evans (SE) conducted an unannounced, on-site inspection of the Lakeland Mills facility located at 1 Lakeland Place in Edmore, Michigan, in order to assess compliance with air quality rules and regulations.

Lakeland Mills is a furniture manufacturing facility. Wood is cut and assembled into furniture, which is then treated and painted to produce the final product. The facility has one active Permit to Install (PTI): PTI No. 189-04. During the last inspection, conducted on April 4, 2019, it was observed that all equipment with applicable requirements in this permit had been removed. It was stated in the past inspection report that the permit should be voided, however, it does not seem to have been voided. During this inspection it was confirmed that the equipment was and is still removed, and the permit will be voided. The facility has confirmed that they do not intend to reinstall the removed equipment at any time and would like the permit voided. All other equipment appears to be operating under permitting exemptions, as is discussed below.

Upon arrival at the facility, SE conducted an initial inspection of the facility perimeter. No odors or visible emissions were observed at the exterior of the facility at this time. After entering the facility, SE was greeted by Company Vice President Calvin Hunt. A brief discussion was held to discuss the purpose of the day's visit. After this discussion, a walking inspection was conducted in which the woodworking floor, paint and finish rooms, and drying room were visited.

### Exempt Equipment

There are multiple spray booths located at the facility. At the time of inspection only three were equipped with spray guns and usable. The remaining were shells currently used for storage. The equipped booths are used for application of paint and other coatings by the facility for finishing of furniture. All booths appeared to be operating properly with appropriate filters in place to prevent the escape of particulate matter during use. The facility records monthly paint and coating use within these booths. In the past 12 months, the highest use was 127 gallons of coating in a single booth through the month of March, 2022. These records and the presence of proper filters in the spray booths meet the permitting exemption Rule 287(2)(C). A Violation Notice regarding improper record keeping had been issued on May 17, 2019. Observation of these records shows that this violation has properly been addressed.

The facility has multiple pieces of equipment used for cutting and shaping wood. All of this equipment is controlled by a baghouse that vents externally. This equipment is exempt from permitting requirements by Rule 285(2)(l)(vi)(C).

The facility has a wood chipper used to reduce scrap wood to wood chips for use in a wood burner used for heat in the facility. This chipper is exempt from air permitting by Rule 285(2)(gg). The wood burner is rated at an output of 800,000 Btu/hr and is exempt from air permitting by Rule 282(2)(b) (iii). Ambient heat from this wood burner is used to dry and condition wood.

There has been debate about if the drying and conditioning process meets the definition of a wood drying kiln, which is not an exempt piece of equipment for air permitting. The facility has been operating the drying room without a permit under the exemption Rule 290. A violation notice was issued on May 17, 2019, for operating the drying process without a Permit to Install. At the time it was believed that the size of the drying room (maximum capacity of 75,000 board feet of lumber), the type of wood being dried (primarily cedar), and the heat of the room (110°F - 120°F) classified the room as a kiln and that the emissions released would exceed the limits of exception Rule 290 for acetaldehyde.

Upon review and discussion with the facility, it has been identified that typical operation of the room is at ~110°F. The capacity of the room has not changed from 75,000 board feet. The type of wood being dried is variable but based on records kept on site seems to primarily consist of pine and cedar wood. A sample of these records is included. Typical average drying time of wood is 1 – 2 weeks.

Upon review of Environmental Protection Agency (EPA) Region 10 emission factors for drying of lumber, acetaldehyde emissions are expected to be 0.0104 lbs for some pine woods and up to 0.0677 lbs for some cedar woods per 1000 board feet (lb/mbf) of lumber. It is worth noting that these values were calculated for drying temperatures of 180°F - 235°F, suggesting that actual emissions from this facility may be lower as the drying temperature is lower, possibly resulting in less complete drying and release of air emissions. If a worst-case scenario is assumed of all cedar wood at maximum capacity for only one week of drying at a time, the emissions of acetaldehyde would be 20.31 lbs/month. Per guidance documentation provided by the EPA regarding significant figures of compliance data, the calculated potential emissions of acetaldehyde should be considered 20 lbs/month to match the significant figures of the regulations. As such, the facility does appear to be exempt from air permitting per the Rule 290 limit of 20 lbs/month.

At this time, the previous violation notice can be resolved. However, the facility has been asked and has agreed to begin keeping track of the amount, type and duration of wood placed into the room so that emissions can be monitored to ensure that they do not exceed the exemption Rule 290 limits. The facility understands that if records show that they are no longer under the emission limits of the exemption they will have to undergo permitting for the drying room.

### Conclusion

At the conclusion of this inspection the facility appears to be in compliance with all applicable air quality rules and regulations. At this time, outstanding violations regarding this facility can be considered closed unless exemption limits are later found to be exceeded.

NAME Scott Evans DATE 5/24/2022 SUPERVISOR PHH