

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Self Initiated Inspection**

U5909013848306

<b>FACILITY:</b> Michigan Chair Company		<b>SRN / ID:</b> U59090138
<b>LOCATION:</b> P.O. Box 217, Howard City		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> Howard City		<b>COUNTY:</b> MONTCALM
<b>CONTACT:</b> Timothy Hoolsema , Co-Owner		<b>ACTIVITY DATE:</b> 04/04/2019
<b>STAFF:</b> Adam Shaffer	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b>
<b>SUBJECT:</b> Self-initiated inspection.		
<b>RESOLVED COMPLAINTS:</b>		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at the Michigan Chair Company (MCC) located in Howard City, MI at 9:48am on April 4, 2019 to complete a self-initiated inspection.

### Facility Description

Prior to entering the facility, off-site odors and visible emission observations were completed. The weather conditions at the time of the inspection were partly cloudy skies, low 30's Fahrenheit and winds from the east at 10-15mph. Upon the initial drive by, yellow/brown emissions were observed coming from a stack on site. This stack was associated with the wood burning boiler that is discussed later in this report. The initial emissions observed were brief in nature, and following this, no additional emissions that were cause for concern and potentially a violation were observed. A wood burning smell was noted to the west of the site, however, no recent odor complaints have been received regarding MCC.

Upon arrival, AQD staff AS met with Mr. Timothy Hoolsema, Co-Owner of MCC, who provided a tour of the facility and answered site specific questions. MCC is mainly a wood bending operation for the furniture industry. Wood types used on site are all hardwoods with a mixture of dried wood and green wood processed. The site currently doesn't operate with an air pollution control permit, but instead utilizes equipment which potentially falls under various air permit exemptions.

### Observations

- Two boilers were observed during the site inspection. One boiler is 80 horsepower, is natural gas only and appears to be exempt per Rule 282(2)(b)(i). The second boiler is approximately 38 horsepower and burns waste wood/sawdust. Based on the observations made the 38 horsepower boiler appears to be exempt per Rule 282(2)(b)(iii).
- Several steaming units and wood bending machines were observed where moisture is added to wood parts in order to bend the materials.
- Several kiln operations were observed during the site inspection. Each kiln area can hold approximately 1,600 board feet of wood for drying. A faster drying job was stated by MCC staff to take approximately 3 weeks. Using emission factors from the "EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012" document, the yearly potential emissions per drying kiln area would appear to be approximately 79.2 lbs of volatile organic compounds (VOCs) and 3.53 lbs of total hazardous air pollutants (HAPs). Based on the limited emissions for each unit, the drying kiln areas observed appear to be exempt per Rule 291.
- Various wood working operations were observed such as rib and chop saws. The emissions from the wood working operations vent to a 5,800 cfm dust collector system with a cyclone and associated storage silo. When speaking with MCC staff it was concluded that the dust collector does not operate with bags but instead relies on the cyclone to remove the dust. MCC staff stated that the baghouse/cyclone collection system at a max operates 40 hours a week. Assuming 4.34 weeks per month and a control of 0.10 lbs / 1,000 lbs this equals to a maximum emission of 453.10 lbs of particulate matter (PM) per month. This is within the 500 lb monthly limit of controlled air contaminants per Rule 290. Based on this operating scenario, the wood working operations and associated PM collection system appear to be exempt per Rule 290. If MCC were to operate the wood working operations and associated PM collection systems more than 40 hours per week then more specific recordkeeping shall need to be completed.
- During the inspection ductwork was observed from the top of the silo that led downward in the area

adjacent to the building. Particulate was observed in the area from the downward ductwork. MCC staff stated that the waste particulate was an accumulation from over the winter. Historically, a rain cap had been located over the storage silo but was changed to the current design in 2006. MCC staff agreed to clean up the particulate observed. Moving forward, potential options will be discussed with MCC staff on further limiting the amount of waste particulate collecting in the area adjacent to the site building.

- One vacuum kiln was observed. MCC had previously claimed this unit had no air emissions and was not subject to Rule 201. During the process, condensate containing VOCs appears to be captured and transported by a drain to the wastewater treatment plant.
- Various maintenance equipment such as a drill press and a welding station were observed. Equipment observed appears to be exempt per Rule 285(2)(i) or Rule 285(2)(l)(vi)(B).

**Conclusion**

Based on the facility walk through, observations made, and information provided, MCC appears to be in compliance with all applicable air pollution control rules at this time.

NAME Adam J. Smith

DATE 04/25/19

SUPERVISOR 