

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

U22240206671524

FACILITY: Sagola Hardwoods		SRN / ID: U222402066
LOCATION: N10640 State Highway M95, Sagola		DISTRICT: Marquette
CITY: Sagola		COUNTY: DICKINSON
CONTACT: Steve Shirkey , Mill Manager		ACTIVITY DATE: 03/19/2024
STAFF: Lauren Luce	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Self-initiated Inspection FY24		
RESOLVED COMPLAINTS:		

Facility: Sagola Hardwoods (U222402066)

Location: N10640 State Highway M95, Sagola, MI, 49881

Contact: Steve Shirkey, Mill Manager

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, The Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

Sagola Hardwoods is a wood processing company that produces hardwood lumber products. The company was founded as Ford River Lumber in 1994 and is based in Sagola, MI. The facility operates one shift and has approximately 60 employees. Logs are purchased, debarked, sawed, and planed. There are two sawmills located on-site. The scragg mill produces pre-cut pallet and crating lumber. The grade lumber mill produces dimensional kiln-dried lumber. There is a heat treater on site for the pallet and crating lumber and a kiln for the dimensional lumber. The facility produces approximately 12 million board feet per year.

Emissions

Wood product manufacturing involves the generation of sawdust, planer shavings, and/or sander dust which contribute to levels of atmospheric PM and PM10. Cyclones or baghouses act as capture/collection systems for air pollution control and product recovery by separating wood residue from the airstream of pneumatic handling systems. The two main sources of air pollution from drying wood are VOCs that are liberated from the wood during the drying process, and the air pollutants resulting from combustion of fuel to produce process heat.

Emissions Reporting

The facility is neither a major source for regulated air pollutants nor subject to any federal New Source Performance Standards (NSPS), and thus is not required to report its annual emissions to Michigan Air Emissions Reporting System.

Compliance History

This is an unregistered facility and has no prior inspections. The facility does not currently hold any Permit to Installs (PTIs). This facility has not received any violation notices in the past five years.

Inspection

On March 19, 2024, AQD Staff (Lauren Luce and Michael Conklin) conducted an unannounced inspection at Sagola Hardwoods in Sagola, MI. AQD Staff arrived at the facility and met with Steve Shirkey, Mill Manager. It was explained that the purpose of the inspection was to ensure compliance with applicable air pollution control rules and federal regulations. The inspection began by discussing operations and equipment. A tour of the facility was then provided.

The inspection began by touring the facility and observing the different wood processing operations. The process begins with incoming logs going through the de-barker and then proceeding to saws depending on the size of the log. The scragg mill is the larger of the two mills and produces pallet and crating lumber using mixed hardwoods and Aspen. Sawdust conveyed through the pneumatic handling system from the scragg mill is controlled by a pulse-jet baghouse equipped with 144 bags and exhausts out a horizontal vent. No visible emissions were observed from the vent and the baghouse appeared to be operating properly. The baghouse also serves as waste wood product recovery system. This process appears to be exempt per Rule 285(2)(l)(vi)(C).

Pallet and crating lumber is then dipped in a water based fungicide tank before proceeding to the heat treater. A 20,000 board feet capacity heat treater is used to remove any pests or pathogens in the wood. The facility estimates this heat treater was installed in 1998/1999. The heat treater for pallet lumber is direct heated and must reach a temperature of 140°F for 30 minutes. Direct heat is provided by a natural gas fired 2 MMBtu/hr Temp-Heat THP-2000 direct heater. This unit appears to be exempt per Rule 282(2)(b)(i). The pallets are assembled on-site and sold to various customers.

The grade mill produces dimensional lumber using primarily hard maple. Lumber from this mill is kiln dried in a 70,000 board feet capacity kiln. The kiln is indirect heated by a 1.5 MMBtu/hr natural gas-fired Columbia boiler. The boiler appears to be exempt per Rule 282(2)(b)(i). Each batch of lumber is dried for approximately 7 days at 160 degrees Fahrenheit. This kiln was installed in approximately 2002/2003. Based on the capacity of the kiln, batch drying time, and wood species of the lumber, the potential VOC emissions from the kiln are less than 5 tpy. Using a factor of 1.44lb VOC/1,000 BF (*Estimated VOC losses during the drying of six eastern hardwood species*, Forest Products Journal), the drying time of seven days, and the batch capacity of 70,000 board feet, the potential emissions are estimated at 2.6 tpy of VOCs. This process is believed to be exempt per Rule 291(2).

Sawdust conveyed through the pneumatic handling system in the grade mill is controlled by a cyclone. The cyclone also serves as a waste wood product recovery system. Mill operations that are controlled by appropriately designed dust collectors appear to be exempt per Rule 285(2)(l)(vi)(C).

There are two additional cyclones located on the de-barker and chipper. No visible emissions were observed from the cyclones and both appeared to be operating properly. Some wood waste collected is sold to paper mills while wood chips are sold to other customers. There are no

emergency engines on-site. A 325,000 BTU waste oil furnace is located in the facility's maintenance shop. All waste oil burned in the furnace is generated on-site. This unit appears to be exempt per Rule 282(2)(b)(iv).

Compliance

Based on this inspection, Sagola Hardwoods appears to be in compliance with the above listed exemptions and all other applicable air pollution control rules and federal regulations.



Image 1: Heat treater



Image 2: Scrag mill baghouse



Image 3: Kiln and pallet assembly building

NAME *Sam Sam*

DATE 4-15-2024

SUPERVISOR *Michael Kaplan*