

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

U55190646649709

FACILITY: Performance Corporation		SRN / ID: U551906466
LOCATION: 560 N. Guard St., Carney		DISTRICT: Upper Peninsula
CITY: Carney		COUNTY: MENOMINEE
CONTACT: Matthew Gagnon , Mill Manager		ACTIVITY DATE: 06/12/2019
STAFF: Michael Conklin	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS:
SUBJECT: Inspection to determine compliance with Michigan Air Pollution Control Rules.		
RESOLVED COMPLAINTS:		

Facility: Performance Corporation
Location: 560 N. Guard St., Carney, MI
Contact: Matthew Gagnon, Mill Manager, 906-833-7839 x304

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

Performance Corporation (Performance) is a wood product manufacturer and transportation services company located in Seymour, WI. Lumber operations are performed at their sawmill in Carney, MI, where the facility produces hardwood materials for a variety of applications, such as furniture, flooring, railroad ties, pallets, crates, animal bedding, and boiler fuel. The facility consists of machines for debarking, sawing, ripping, planing, and surfacing. A pneumatic transfer system collects and routes wood waste from processing operations through a fabric filter collector (baghouse) to truck trailers, where it is sold as product for boiler fuel or animal bedding. The table below summarizes the emission units at this source.

Emission Unit ID	Description
EUPNEUMATICLINE	A pneumatic transfer system that transports wood waste collected from process operations to truck trailers. Emissions are controlled by a fabric filter collector.

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.

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. Thus, this facility has not received any violation notices in the past five years.

Inspection

On June 12, 2019, I (Michael Conklin) conducted an unannounced inspection at Performance Corporation in Carney, MI. I explained to personnel on-site that the purpose of the inspection was to ensure compliance with Michigan's Air Pollution Control Rules.

We began the inspection 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. Logs can be cut to produce high and low grade cants that are further processed through band saws to produce lumber and pallet stock. The duct work for the wood waste collection system appeared to have no leaks inside the facility and all points of saw dust generation were collected for. We next went outside the plant to observe the baghouse for the pneumatic line and the truck trailers for the wood waste collection.

Regulatory Analysis

Performance currently does not hold any Permit To Install (PTIs). The facility is considered an area source for hazardous air pollutants (HAP) because the potential to emit of any single HAP is less than 10 tpy and aggregate HAP emissions are less than 25 tpy. The facility is also considered a true minor source for all regulated air pollutants because the facility's potential-to-emit is less than 100 tpy for each regulated air pollutant. The facility does not contain any equipment or processes that are subject to federal New Source Performance Standards (NSPS) or National Emissions Standards for Hazardous Air Pollutants (NESHAP).

EUPNEUMATICLINE

Wood waste from each production operation point is drawn and collected through completely enclosed piping. The wood waste airstream is pneumatically routed through a baghouse that acts as a material collection device and an air pollution control device. Particles that funnel to the hopper of the baghouse are then routed to truck trailers. A pressure gauge on the baghouse is used to monitor the performance. No visible emissions were observed from baghouse. The collection system appeared to be operating properly, and there were no fugitive dust emissions observed from the trailers. The trailers were fully sealed, not allowing any dust to escape.

It was observed, however, during the inspection that one of the lines from the baghouse was not connected to a trailer and was spewing saw dust outside. At the time, personnel did not know why this was occurring and stated that the lines are normally connected to the trailers when operating. In a follow up email, Mr. Magnon stated that the trailer filling process has been an ongoing project and that problems were arising with plugging the trailer inlet. A diversion in the piping was created so that there could be better flow of sawdust into the trailers and reduce pressure buildup. The line observed not connected to a trailer was to minimize the pressure into the loading trailer to avoid plugging the system. At the time, the facility stated that they did not have enough piping to divert the line into an adjacent trailer, but has since added additional piping to stop fugitive dust emissions. A fugitive dust plan will be requested from the company to monitor trailer loading and to eliminate the possibility of reoccurrence of this issue.

Rule 285(2)(l)(vi)(C) exempts equipment for woodworking operations if the equipment has externally vented emissions controlled by a fabric filter collector. The use of this exemption is limited if the actual emissions of the project are greater than significance levels as defined in R 336.119, per Rule 278. In an additional information request, Mr. Gagnon provided the total board footage produced, the recovery factor, and the species of wood processed. Performance cuts mixed hardwood for pallet stock and produces 7,546,913 board foot per year, with a recovery factor of 2.69 cords per thousand board foot produced. This equates to 20,301 cords of mixed hardwood processed a year. Using a cordwood weight conversion factor of 5200 lbs/cord (Bayfield County Cordwood Weight Conversion Factors, July 1996), the annual amount of wood processed is 52,783 tons/year. The equation below is used to estimate the actual particulate emissions from the sawing operations.

Annual Production (bf/year) x Recovery Factor (Cord/1000 bf) x Weight Conversion Factor (lb/cord) x (1/2000)(ton/lb) x Emission Factor (lb (PM, PM10, PM2.5)/ton of wood) x Control ((100 - % Control Efficiency)/100) =
lb (PM, PM10, PM2.5)/year

A PM emission factor of 0.35 lb/ton, for sawing operations, was used in the calculation (EPA-450/3-78-107, September 1978). Sawing consists of cutting the log into cants with a smooth edge, cutting the cant down into multiple flitches and/or boards, trimming off irregular edges to leave four-sided lumber and trimming to square the ends. A conservative approach was taken to assume all PM is PM10 and PM2.5. For modern baghouses (post 1995), control efficiencies can be 99.9% for PM, 99.5% for PM10, and 99% for PM2.5. Another conservative approach was taken to use the lowest control efficiency of 99%.

Plugging in these values to the equation above provides actual emissions of particulates to be 0.09 ton/year. Based on the actual emissions being well below the significance levels as defined in R 336.119, this emission unit appears to be exempt per R 336.1285(2)(l)(vi)(C).

The following table lists equipment that is considered to be exempt at the source.

Emission Unit	Description	PTI Exemption
EUPNEUMATICLINE	Wood waste collected from cutting, sawing, and planing is routed through a pneumatic line with emissions controlled by a fabric filter collector.	R 336.1285(2)(l)(vi)(C)

Compliance

Performance Corporation will be requested to submit a fugitive dust plan to ensure no particulate emissions are introduced to the outer air from the collection system. Following the submittal of a fugitive dust plan, Performance Corporation will be in compliance with all state air quality rules and federal regulations.

NAME Michael Hallen DATE 7/31/2019 SUPERVISOR EJL



Image (1): Sawdust is collected at generation points and pneumatically conveyed to the baghouse.



Image (3): Fugitive dust emissions from collected waste wood residue.