

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

B163157427

FACILITY: NORTHERN HARDWOODS		SRN / ID: B1631
LOCATION: HIGHWAY M-26, SOUTH RANGE		DISTRICT: Marquette
CITY: SOUTH RANGE		COUNTY: HOUGHTON
CONTACT: Jay Andrews , Facility Manager		ACTIVITY DATE: 03/18/2021
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced inspection to determine compliance with PTI# 117-79		
RESOLVED COMPLAINTS:		

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

Northern Hardwoods is in Atlantic Mine, Adams Township, five miles south of the city of Houghton, Houghton County. The site is off M-26 just south of Atlantic Mine and is rural with the nearest residence approximately ¼ mile to the northeast. The facility specializes in processes a variety of hardwoods, including hard maple, soft maple, red oak, white oak, cherry, yellow birch, white birch, basswood, aspen, and hickory. Wood is kiln dried using boiler heat.

The facility operates a Bethlehem Multi-Fuel 425S Scotch Marine boiler that was installed new in 1979 and permitted under PTI# 117-79. This is the only PTI for the facility. The boiler is fueled solely on wood waste from plant production and is equipped with two Zurn Multi-Tube cyclones to control emissions. The cyclones collect fines which are then dropped into a hopper.

COMPLIANCE

The facility was last inspected 7/25/2013 with no compliance issues. There are no outstanding violations or complaints regarding the facility.

My contact at the site was Mr. Jay Andrews, Facility Manager. Mr. Clovis Fortin was the previous Facility Manager; he has since retired. Mr. Andrews and I toured the outside of the facility and the boiler house and cyclones. I did not enter the facility due to Covid-19 restrictions.

PTI# 117-79

SC 11 Rule 331 - The particulate emission from the Bethlehem boiler; hereinafter, "boiler" shall not exceed 0.35 pound per 1,000 pounds of exhaust gases, corrected to 50% excess air, 9.4 pounds per hour nor 41.2 tons per year.

The facility tested the boiler exhaust on 12/16/1992 using the same fuel and mix that is currently used. PM emissions over 3 60-minute test runs averaged 0.1257 pound per 1000 pounds of exhaust gases and 4.02 pounds per hour.

The boiler was operating at just under 12,000 pounds/hour during the test, which is the rated maximum capacity. The facility typically operates the boiler at no greater than 85% of the rated maximum capacity. Based on this it is assumed the facility is not exceeding the PM limit of 41.2 tons per year.

SC 12 The sulfur dioxide emission rate from the boiler shall not exceed 0.41 pound per million BTUs heat input. This is equivalent to using oil with a 0.4% sulfur content and a heat value of 19460 BTUs per pound.

The facility strictly fuels the boiler with wood waste and no longer fires the boilers with No. 2 fuel oil; the oil tank is no longer on site. The SO2 emission limit in SC 12 is no longer applicable.

SC 13 Visible emissions from the boiler shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a).

Visible emissions at the time of inspection were between 0-5%. Exhaust was steady with no interruptions. The facility was not exceeding the opacity limit of 20% average over a 6-minute interval.

SC 14 Applicant shall not operate the boiler unless the cyclones are installed and operating properly.

The cyclones are installed and operating correctly.

SC 15 The exhaust gases from the boiler shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 26.4 inches at an exit point not less than 40 feet above ground level.

The stack is original since installation of the boilers in 1979 and has a diameter is 15" and is 40' above ground level.

SUMMARY

No violations or compliance issues were observed. The facility is in compliance with PTI# 117-79 and all applicable Michigan Air Pollution Control Rules.

NAME



DATE

9/27/21

SUPERVISOR

