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

B147160931

FACILITY: TIMBER PRODUCTS MICHIGAN		**SRN / ID:** B1471
LOCATION: HIGHWAY M-28, MUNISING		**DISTRICT:** Marquette
CITY: MUNISING		**COUNTY:** ALGER
CONTACT: Jon Johnson , General Manager		**ACTIVITY DATE:** 10/27/2021
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Unannounced inspection to determine compliance with PTI# 292-96		
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

Timber Products Michigan is located on M-28 in Alger County, just east of the city of Munising in the community of Wetmore. The company has 165 employees on staff with a five day work week. The facility has a single permit to install (PTI# 292-96) for operation of wood boilers and adhesive usage.

Timber Products processes hardwood logs and produces several different wood products including (but not limited to) plywood, railroad ties, and veneer used to make musical instruments. The facility primarily uses hard maple, soft maple, and birch.

PROCESS DESCRIPTION

The facility operates two mills, a sawmill and a veneer mill. The sawmill was constructed in 1960 and the veneer mill in 1970. The sawmill processes approximately 1800 logs per day and produces 12.5 million linear feet of hardwood lumber annually. The veneer mill processes approximately 300 logs per day and produces 125 million square feet of whole and spliced 1/40" hardwood veneer annually.

Logs are received via truck and rail car from outside contractors. In the log yard, logs are weighed and sorted, then sent to either the veneer mill or the sawmill.

In the veneer mill, hardwood veneer logs are sent to steam vats, then trimmed, debarked, peeled, and dried in a 3-stage steam-heated dryer for 2 minutes at 130°. Once dry, the veneer is sorted, graded and if necessary spliced with a heat-activated adhesive. Finished product is then shipped via an outside contractor.

In the sawmill, hardwood saw logs are debarked, sent through the Head Rig (main saw), and then sorted to either the Gang Saw (typical for green railroad ties), the Resaw for further cutting, or straight to the Edger. Lumber sent to the Resaw is routed to the Edger once the wood is cut to the right dimensions. Lumber sent to the Edger is trimmed, graded, sorted, and packaged on pallets.

Green lumber is shipped via outside contractor while lumber to be dried is sent to one of steam-heated 10 dry kilns on site. Kiln temperatures are typically around 150° for maples and birch, however harder woods such as oak and cherry may be dried at much lower temperature of around 80° to avoid stressing the grain. Retention time in the kilns is about 20 days.

The facility operates 4 wood fired boilers fired using wood byproduct from log milling. Boilers 1 & 2 are fire tube style boilers and share a common stack that is 125' high with a diameter of 60". Boilers 3 & 4 are water tube style boilers and each have individual stacks, 60' x 36" and 55' x 54", respectively. During the warmer months the facility typically operates three boilers; the fourth boiler is operated for additional heat capacity during the colder months. Particulate emissions for the boilers are controlled via cyclone dust collectors prior to exiting the stacks.

EMISSIONS REPORTING

Timber Products Michigan is a Synthetic Minor for Carbon Monoxide (CO) and operates under PTI# 292-96. The facility maintains compliance with a CO limit of 89 tons per year via wood and fuel oil limits for the boilers. The permittee is required to track monthly and annual wood and fuel oil usage, as well as monthly adhesive usage for the veneer splicing operations. Wood fuel usage is calculated using the boiler feedwater flow rate as a surrogate; therefore, the facility is required to track this as well.

It was confirmed during previous inspections that the facility boilers no longer burn fuel oil or have the capability to burn fuel oil, therefore Special Conditions 20 through 24 of PTI# 292-96 are not currently necessary to maintain permit compliance.

Timber Products is required to report its annual emissions through the Michigan Air Emissions Reporting System (MAERS). The following table lists stationary source emission information as reported to MAERS for the year 2020.

POLLUTANT	QUANTITY (LB)
CO	0
Lead	108.08
NOx	0
PM10, FLTRBLE	32573.49
PM2.5, FLTRBLE	26139.49
SO2	0
VOC	0

INSPECTION

This site visit was conducted jointly by EGLE AQD staff from the Marquette District office and Region 5 EPA staff. EPA staff were present to familiarize themselves with the facility; no regulatory compliance determination was made by EPA from this inspection.

EGLE and EPA staff arrived at the facility on the afternoon of 10/27/2021 and introduced ourselves to Mr. Jon Johnson, General Manager. Mr. Rich Aldrich, Plant Engineer, is the normal point of contact for AQD staff, however he was not present at the time of inspection. Mr. Johnson was very accomadating and after a brief introductory meeting he proceeded to take us on a tour of the two mills and log yard.

PTI# 292-96 SPECIAL CONDITIONS

13. Visible emissions from Boilers 1, 2, 3 and 4 shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301 (1)(a).

> Boilers 1, 2, and 3 were operating at the time of inspection. No visible emissions from the boilers were observed at the time of inspection. All cyclone dust collectors were installed and appeared to be operating correctly.

14. Rule 331 - The particulate emission from wood-fired Boiler # 1 shall not exceed 0.50 pounds per 1000 pounds of exhaust gases, corrected to 50% excess air.

15. Rule 331 - The particulate emission from wood-fired Boiler #2 shall not exceed 0.50 pounds per 1 000 pounds of exhaust gases, corrected to 50% excess air.

16. Rule 331 - The particulate emission from wood-fired Boiler #3 shall not exceed 0.50 pounds per 1 000 pounds of exhaust gases, corrected to 50% excess air.

17. Rule 331 - The particulate emission from wood-fired Boiler #4 shall not exceed 0.50 pounds per 1000 pounds of exhaust gases, corrected to 50% excess air.

> SC 14-17: PM emissions were verified to be in compliance during a 1995 emissions test conducted on Boilers 2, 3, and 4.

18. Wood fuel usage in Boilers 1, 2, 3, and 4 combined shall not exceed 44,500 tons per year, based on a 12-month rolling average calculated at the end of each calendar month.

19. Permittee shall maintain monthly records of the 12-month rolling average wood fuel usage for Boilers l, 2, 3, and 4 combined to demonstrate compliance with the wood fuel usage limitation of Condition 18. Permittee may calculate the wood fuel usage using the measured surrogate parameter of boiler feedwater flow, with a conversion factor of 3.0 pounds of boiler feedwater per pound of wood fuel. All such 12-month rolling average records shall contain both the measured boiler feedwater flow and the corresponding calculated wood fuel usage rate. These records shall be kept on file for a period of at least two years and be made available to the Air Quality Division upon request.

> SC 18-19: The facility calculates the wood fuel usage with the measured surrogate parameter of boiler feedwater flow. The facility provided monthly and 12-month rolling

annual records for boiler feedwater flow/wood fuel usage from October 2020 through October 2021 (see attached). The calculated 12 month rolling sum of wood burned through October 2021 is 30,196 tons combined for all 4 boilers. This is in compliance with the permit limit of 44,500 tons per year of wood fuel usage for all 4 boilers.

20. Used oil shall be burned only in Boiler #3.

21. Permittee shall not burn more than two gallons per hour, nor more than 160 gallons per month, of used oil in Boiler #3. Used oil shall be limited to on-site generated used oil.

22. Permittee shall record the amount of used oil burned in Boiler #3 for each calendar month. All such records shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

23. Permittee shall not burn used oil in Boiler #3 if the level of total halogen content of the used oil exceeds 1000 parts per million.

24. Within 120 days after written notification from the District Supervisor, applicant shall submit an analysis of the used oil fired in Boiler #3.

SC 20-24: The facility quit burning fuel oil in 2012 and boilers no longer have the capability to burn fuel oil. Special Conditions 20-24 are not applicable.

25. Exhaust gases from Boiler #3 shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 36 inches at an exit point not less than 60 feet above ground level.

Stack is vertical and exhaust unobstructed; however, stack diameter and height were not verified at the time of inspection. Facility reports stack dimensions of 60' x 36" in MAERS.

26. Exhaust gases from Boiler #4 shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 54 inches at an exit point not less than 55 feet above ground level.

Stack is vertical and exhaust unobstructed; however, stack diameter and height were not verified at the time of inspection. Facility reports stack dimensions of 55' x 54" in MAERS.

27. Visible emissions from the sawmill, veneer mill, planer, and hydraulic ladder shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301 (1)(a).

No visible emissions were observed at the time of inspection. It should be noted the veneer mill was not fully operating at the time of inspection (no log peeling).

28. Rule 331 -The particulate emission from the sawmill. veneer mill, planer, and hydraulic ladder shall not exceed 0.10 pounds per 1000 pounds of exhaust gases. This limit applies to each exhaust point separately.

No test data exists for this condition; permit evaluation completed at the time of permitting indicates the facility should be well within this limit.

29. Verification of particulate emission rates from Boilers 1, 2, 3, and 4, and from individual exhaust points at the sawmill, veneer mill, planer, and hydraulic ladder by testing, at owner's expense, in accordance with Department requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, stack testing procedures and the location of stack testing ports must have prior approval by the Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.

30. Permittee shall not operate Boiler 1, 2, 3, and/or 4, sawmill, veneer mill, planer, or hydraulic ladder unless its respective dust collector is installed and operating properly.

All dust collection units are installed and operating properly.

31. Collected dust shall be removed from the dust collectors as necessary to maintain the dust collectors at the required operating efficiency.

Dust collector bins are emptied on a regular basis, as necessary.

32. The disposal of collected air contaminants and/or waste powder adhesive shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.

Adhesives are applied in a controlled setting within the plant environment; veneer splicing units are not exhausted to outside atmosphere.

33. Permittee shall not use more than 5,000 pounds per month of adhesive in the veneer splicing operation.

Facility has used 265 lbs of adhesives for October-November 2021. Records for the previous 11 months are all well below the permitted threshold, with April of 2021 having the highest usage of 525 lbs (see attached records).

34. Permittee shall maintain records to verify that adhesive usage is in compliance with the usage limit of Condition 33. These records shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

Permittee has records on file and available (see attached records).

34. Permittee shall not substitute any adhesive for that described in this permit which would result in an appreciable change in the quality or any appreciable increase in the quantity of the emission of an air contaminant, without prior notification to and approval by the Air Quality Division.

Current adhesives in use have not resulted in an appreciable change in quality or quantity of emissions; the facility uses less adhesive currently than when permitted in 1996. SDS sheets for the two adhesives (Roo Glue 6510 & LRBG Chemicals S315 Urea Formaldehyde Spray Dried Powder Splicer Glue) are included with this report.

SUMMARY

At the time of inspection Timber Products of Michigan appeared to be in compliance with PTI# 292-96 and all other applicable state and federal air quality regulations.

NAME _____ DATE 12-3-21 SUPERVISOR _____