DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N594043391

FACILITY: POTLATCH LAND & LUMBER LLC.		**SRN / ID:** N5940
LOCATION: 650 A AVENUE, GWINN		**DISTRICT:** Upper Peninsula
CITY: GWINN		**COUNTY:** MARQUETTE
CONTACT: RON SALISBURY , PLANT MANAGER		**ACTIVITY DATE:** 01/22/2018
STAFF: Shamim Ahammod	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Completed field inspection and reviewed documents.		
RESOLVED COMPLAINTS:		

Facility: Potlach Land and Lumber, LLC

Inspection Date: January 22, 2018

MDEQ-AQD Staff: Shamim Ahammod, Environmental Engineer

Facility Representative: Ron Salisbury, Plant Manager

LOCATION:
The facility is located at 650 A Avenue, Gwinn, MI 49841.

SOURCE DESCRIPTION:
The Potlach Land and Lumber, LLC -Gwinn Lumber facility was originally constructed in 1998 following the issuance of a Permit to Install in 1996. Green Logs are rough cut into lumber in an automated sawmill and dried in one of four indirect heated steam dry kilns. The four kilns dry a combined total of 220,000,999 board feet of lumber per year on a finished board basis. The mill processes jack pine, red pine, balsam, spruce and insignificant amounts of white pine and tamarack. Wood chips, sawdust, and wood waste are sold or burned in the wood-fired boilers.
The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) in the 2016 submittal.

Pollutant	Tons per year (tpy)
Carbon Monoxide (CO)	0.006
Lead (Pb)	0.006
Nitrogen Oxides(NOx)	0.030
Particulate Matter (PM)	52.12
Sulfur Dioxide (SO_2)	0.002
Volatile Organic Compounds (VOCs)	121.05
Total Hazardous Air Pollutants (HAPs)	0

INSPECTION:
On January 22, 2018, Joe Scanlan and I (Shamim Ahammod) conducted a scheduled inspection of the Potlach Land and Lumber, LLC. We arrived at the security office near the main entrance gate and then we directed to the facility main office. We met with Ron Salisbury-Plant Manager, David Ruokolainen-Maintenance Superintendent, and Amy Kuivanen-Environmental Coordinator. I told them the purpose of the inspection was to conduct a scheduled inspection of the facility to determine the company's compliance with their issued ROP No: MI-ROP-N5940-2013a. At the beginning of our meeting, we discussed issued ROP, and then we went on a brief walk through the plant to get an idea of the overall operations at the plant. David explained each and every emission unit's activity during field tour.

REGULATORY ANALYSIS:

FG-Dry Kilns:
Four indirect steam heated kilns used for drying Jack Pine, Red Pine, Spruce, Balsam, White Pine, Tamarack, and other native species.

Emission Limit:
FG-Dry Kilns consist of four emission units EU-Dry Kiln1, EU-Dry Kiln2, EU-Dry Kiln3, and EU-Dry Kiln4. According to Special Condition (SC) I.1, FG-Dry Kilns have VOC emission limit of 176.8 tpy (tons per year). As stated in the 2016 Michigan Air Emissions Reporting System (MAERS) report, VOC emission from FG-Dry Kilns was 121.05 tpy. This satisfies the permit conditions set forth in I.1, and VI.2.e.

Material Limits:
The permittee requires keeping records of each wood species and amount of board feet dried per calendar month (SC VI.2.a, VI.3, and VI.4). Per our request, they sent all required documents regarding records keeping and monitoring. Based on their records, they dried the total amount of 108,200,223 (Permit limit of 140,000,000), and 188,709,650 (Permit limit of 205,000,000) board feet per year of Red Pine, and Wood respectively for the time period of December 2016 through December 2017. As specified in SC II.2 and SC VI.3, the permittee shall maintain records of the board feet of Red Pine dried per charge and it is not more than 215,000 board feet per charge in EU-DRYKILN3. Based on their records, they did not exceed the limit.

FG-PLANERSYSTEM:
FG-PLANERSYSTEM contains the following emission units: EU-PLANNER, EU ENDTRIMMER1, EU-ENDTRIMMER2, EU-ENDTRIMMER3, and EU-TRAILERS.

Emission Limits:
The emission of particulate matter (PM) was 0.8 pph in FG-PLANERSYSTEM (MAERS report-2016) which was well below the PM emission limit of 5.2 pph. This satisfies the permit conditions mentioned in SC I.2, and VI.3. As specified in SC V.1, the permittee requires performing visible emission observations at least once each calendar month which is checked and found they did visible emission observation in every month and made records. Based on their records, there were no visible emissions for the time period of January through December 2017. Per SC VI.2, the permittee requires maintaining the differential pressure gauge for FG-PLANERSYSTEM which is reviewed.

FG-GASBOILER:
The facility has one natural gas-fired boiler rated at 800 horsepower with a heat input capacity of 48.8 MMBTU/hr. As stated in SC VI.1, the permittee shall record and maintain records of the amount of natural gas consumed during each calendar month. Once requested, they sent me monthly gas boiler usage log for last 12 months which satisfies the permit conditions. According to their records, the amount of monthly natural gas consumed in gas boilers in 2017 are as follows:

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
MSCF/Month*	13,171	11,965	13,532	10,001	8,868	11,939	11,527	9,951	7,595	12,581	14,911	14,580

MSCF/Month* (Thousand standard cubic feet per month)

FG-PNEUMATICLINE:
Pneumatic chip/air separator line that conveys the chips through a blow line. The blow line may convey the chips to only one of three routes at a time: to the chip pile, rail car, or truck bin controlled by the cyclone.

This unit has one pollution control equipment (Cyclone)which was inspected during plant visit. Per SC I.1, the permittee requires maintaining PM limit of 11.7 pph. In 2016 (MAERS report), PM emission was 0.8 pph which is well below PM limit of 11.7 pph. The permittee has recorded the daily hours of operation of the truck bin loading which is required by SC VI.1.

Process/operational restriction:
The permittee shall restrict the loading operation of the truck bin controlled by a cyclone to less than 5,075 hours per year as described in SC III.3. Based on their records, the loading operation of the truck bin was 4220 hours for the time period of January through December 2017.

FG-GENERATOR:
The facility has a 200-kilowatt diesel-fueled emergency generator installed in 2013. According to SC III.1, the facility can run the generator up to 100 hours per year for the purpose of the necessary maintenance checks and readiness testing. The generator was operated for 14.9 hours in last 12 months. Once requested, permittee sent me the following information that satisfies the permit requirements set forth in SC VI. 1 and 2.

- **Manufacturer certification documentation indicating that EU-GENERATOR meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR, Part 60, Subpart IIII.**
- **Records of the hours operation during non-emergencies on a monthly and 12 month rolling time period basis.**

According to SC VI.3, the facility requires keeping fuel supplier certification records to verify the sulfur content of 15 ppmw. According to their records, it is seen that the road diesel fuel sulfur content is 15 ppm.

FG-WOODBOILERS:
FG-Wood boilers contain two emission units i.e., EUWOODBOILER1 and EUWOODBOILER2. Per SC VI.1, the permittee requires keeping monthly records of the type and amounts (in gallons) of spilled oils, hydraulic fluids, antifreeze and spent boiler chemicals stored in the fuel bin and combusted in the boiler. Records have been received and reviewed. Records of the wood fuel burned in the boilers are as follows:

Wood Fuel Burned in tons												
Months	**Jan.**	**Feb.**	**Mar.**	**Apr.**	**May**	**Jun.**	**Jul.**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
Boiler 1	1915	1727	1857	1707	1718	1684	1708	1717	1179	1573	1645	**1753**
Boiler 2	1847	1677	1905	1591.5	1612	1616	1625	1612	1131	1551	1603	**1780**

As specified SC VI.3, the permittee requires keeping records of CO, PM, and Benzo(a) pyrene emissions in tons per year based on a 12-month rolling time period. Once requested, they sent me the calculation and records of benzo(a)pyrene, CO, and PM emissions in tons per year for boiler 1 and boiler 2 (calculations have been attached to this report). Here is the summary of records for the time period of January through December 2017:

- **The Benzo Pyrene emission was less than 0.00003 tpy for both boiler 1 and boiler 2 (SC 1.3 specifies Benzo Pyrene limit of 0.0027 tons per year.)**
- **The CO emission was less than 4 tpy for boiler 1 and less than 3 tpy for boiler 2 (Per SC 1.6, CO limit of 62.85 tpy for each boiler)**
- **The PM emission was less than 9 tpy for boiler 1 and less than 13 tpy for boiler 2 (As specified in SC 1.9, PM emission limit of 25.1 tpy for each boiler).**

The differential pressure across the multi-cyclone was on between -1 and +1(w.g-Water Gauge) where normal operating range is -5.0" to +5.0" w.g. This satisfies the permit conditions set forth in SC VI.4.

Via onsite inspection, review of records, and discussion with staff, the facility appeared to be in compliance with the conditions of issued ROP No: MI-ROP-N5940-2013a.

Date: March 6, 2018

I have received a letter requesting few corrections in the activity report from Ron Salisbury-Plant Manager on March 6, 2018. I reviewed the information and have made few changes in the activity report.

Below is the correct information I have made a change:

Source Description:
The four kilns have a maximum capacity of 220,000,000 board feet per year. However, kiln capacity is limited in the facility's Renewable Operating Permit (MI-ROP-N5940 2013a) to 205,000,000 board feet per year (rolling 12-month time period).

Stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) in the 2016 submittal

Pollutant	Tons per year (tpy)
Particulate Matter (PM)	35.20*

*** In 2016, the company reported in MAERS that the total amount of PM-10 emissions were 70390.16 pounds (35.20 tons) and the total amount PM-2.5 emissions were 33854.44 pounds (16.93 tons). The PM 2.5 emissions are a sub-set of PM-10. Therefore, the total amount of Particulate Matter (PM) emissions from the facility were 35.20 tons in 2016.**

REGULATORY ANALYSIS:

FG-Dry Kilns:
Based on their records, they dried 109,665,818 board feet of Red Pine (Permit limit of 140,000,000 board feet), and 189,438,779 board feet of Wood (Permit limit of 205,000,000 board feet) in 2017.

NAME _____ DATE 3/6/2018 SUPERVISOR _____