

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

B147043861

FACILITY: NEENAH PAPER - MICHIGAN INC		SRN / ID: B1470
LOCATION: 501 E MUNISING AVE, MUNISING		DISTRICT: Upper Peninsula
CITY: MUNISING		COUNTY: ALGER
CONTACT: NATALIE KENTNER, ENVIRONMENTAL ENGINEER		ACTIVITY DATE: 03/29/2018
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Onsite inspection to verify compliance with MI-ROP-B1470-2013a and all other applicable state and federal air quality regulations		
RESOLVED COMPLAINTS:		

On March 29, 2018 I (Sydney Bruestle) performed an onsite inspection at Neenah Paper located at 501 east Munising Avenue, Munising Michigan. While onsite I met with Natalie Kentner, Environmental Engineer. Mrs. Kentner gave me a tour of the facility, an overview of the permitted equipment, and provided me with the required records.

#### Facility Description:

The Neenah Paper Michigan, Inc., Munising Mill is located on the shore of Lake Superior within the city limits of Munising in Alger County. The area surrounding the mill is zoned commercial so there are no homes located adjacent to the mill property. The main source of emissions from the mill is a 202 million MM/Btu/Hr spreader stoker coal fired boiler. A new baghouse was installed on this boiler in 1996 under Permit No. 218-96A to meet the 0.3 pound per 1,000-pound particulate limit. A Spray Dry Absorber (SDA) was installed on the same boiler in 2015 to reduce HAP emissions and allow Neenah to become a synthetic minor source of HAPs. The mill also operates a latex coater and a dryer in conjunction with their #1 Paper Machine under Permit No. 530-89. Volatile organic compound (VOC) emissions from the coater are limited to 7.8 tons per year under this permit. Approximately 15 additional tons of VOCs are emitted per year from the Saturators, Coaters, and other sources located within the mill.

#### Regulatory Summary:

Alger County is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of Carbon Monoxide (CO), Nitrogen Oxides (NOx), and Sulfur Dioxide (SOx) exceeds 100 tons per year.

The stationary source is considered to be a "synthetic minor" source in regards to HAP emissions because the stationary source accepted a legally enforceable permit condition limiting the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, to less than 9 tons per year and the potential to emit of all HAPs combined to less than 22.5 tons per year. An "opt out" Permit to Install (PTI) was issued February 3, 2015 to limit facility emissions. This permit was issued for the installation of the Sorbent Spray Absorber pollution control device on EU05. This scrubber primarily controls HCL emissions from EU05. The facility adjusts the concentration of the scrubber solution as needed to comply with the HAP emission limit. The emission factors for each set concentration are outlined in the Malfunction Abatement Plan and Appendix 7 of the ROP. These emission factors are based on several stack tests. The opt out permit was issued prior to the compliance date of 40 CFR Part 63, Subpart DDDDD, allowing the facility to be subject to the area source MACT, 40 CFR Part 63, Subpart JJJJJJ instead. Neenah Paper is no longer a major source for HAPs and is no longer subject to 40 CFR Part 63, Subpart JJJJ.

EU05 (Boiler #1) and EU15 (Boiler #2) at the stationary source are subject to the National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and JJJJJJ (Area Source MACT). The ROP contains special conditions provided by Neenah Paper in their application for applicable requirements from 40 CFR Part 63, Subparts A and JJJJJJ. The AQD is delegated the regulatory authority for this area source MACT.



The emission limitation(s) or standard(s) for PM-10 from EU05 (Boiler #1) at the stationary source is subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64. This emission unit has a control device and potential pre-control emissions of PM-10 greater than the major source threshold level.

**MI-ROP-B1470-2013a Source Wide Conditions:**

***Emission Limits:***

***Individual HAPs:*** Less than 9 tpy: December 2017 12 month rolling: 8.2 tpy: In Compliance

***Aggregate HAPs:*** Less than 22.5 tpy: December 2017 12 month rolling: 9 tpy, most of the HAP emissions are HCL

***Testing Requirements:*** Within 180 days of placing the spray dry absorber (SDA) into service, the permittee shall determine emission rates for Hydrogen Chloride, Arsenic, Phosphorous, Manganese, Barium, Chromium, and lead and determine the Hydrogen Chloride control efficiency from EU05 (using exhaust emissions and the chlorine in the coal) by testing at owner's expense, in accordance with Department requirements. The permittee must complete the test once every five years, thereafter. Testing Completed: In Compliance

***Monitoring/ Record Keeping:***

The permittee shall keep the following information monthly:

- The quantity of each HAP containing material used or emitted.
- The HAP emission factor of each HAP containing material used or emitted.
- Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
- Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

***Reporting:*** In Compliance

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

**Emission Units:**

**EU05: Boiler #1**

***Unit Description:*** Boiler, baghouse, stack, coal and ash handling. It can burn coal and natural gas. The boiler capacity is 202 MM BTU/Hr. heat input. The baghouse is utilized to reduce particulate emissions

from EU05. EU05 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for the emission unit is PM-10.

**Pollution Control Equipment:** Fabric filter baghouse to control particulate matter emissions (this is a CAM subject control device), and a spray dry absorber (SDA) to control Hazardous Air Pollutants (HAPs).

**Emission Limits:**

**Particulate:** 0.30 lbs/1000lbs: In Compliance: stack test

**Material Limits:** Coal: maximum sulfur content of 1.5% by weight calculated based on 12,000 BTU's per pound of coal: In Compliance

**Process/Operational Restrictions:** In Compliance

- If less than three baghouse modules (out of five) are operating at the baghouse collector, the permittee shall implement corrective action and maintain a record of action taken to prevent recurrence. (R 336.1213(3), R 336.1910)
- Within 60 calendar days of placing the SDA into service, the permittee shall submit to the AQD District Supervisor, an updated Malfunction Abatement Plan (MAP) for EU05. At a minimum the plan shall contain the following: Received: February 2018 for review: In compliance
  - o Operation and maintenance criteria for EU05, add-on control device(s), and for the process and control device(s) monitoring equipment as well as a standardized checklist to document the operation and maintenance of the equipment;
  - o The work practice standards for the add-on control device(s) and monitoring equipment;
  - o Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and
  - o A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.

Upon detecting an excursion of the opacity limit, the permittee shall restore operation of EU05 to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. An excursion is the exceedance of the opacity limit (i.e., opacity greater than 20%, except for one 6-minute average per hour greater than 27%). (40 CFR 64.6, 40 CFR 64.7)

**Design/Equipment Parameters:**

- Equip and maintain the baghouse collector with a pressure drop indicator: In Compliance
- Shall not operate EU05 unless SDA is installed, maintained, and operated in a satisfactory manner: In Compliance.

**Testing/Sampling:**

- Shall perform a stack test for particulate matter by June 30, 2016 and once every three years thereafter: In Compliance most recent testing done 11/1/2016

**Reporting:**

- Prompt Reporting of Deviations
- Semiannual reporting of monitoring and deviations
- Annual certification of compliance

In compliance with reporting requirements

**EU15: Boiler #2**

**Unit Description:** Boiler #2 and stack: Boiler #2 burns #2 fuel oil. This boiler produces 150,000 lbs. of steam per hour. Boiler capacity is 225 MMBTU/hour heat input. This is a limited use boiler.



**Emission Limits:**

**Sulfur Dioxide:** 1.7 pounds per million BTUs of heat input for fuel oil: In Compliance Last Shipment 6/19/00

**Material Limits:**

**#2 Fuel Oil:** Maximum sulfur content of 1.6% calculated based on 18,000 BTUs per pound of fuel oil. Percent sulfur last shipment was 0.038% Records are attached to the hard file of this report.

**Monitoring and Record Keeping:** Shall obtain and keep records of sulfur content of the fuel oil burned in Boiler #2: In Compliance

**Reporting:**

- Prompt Reporting of Deviations
- Semiannual reporting of monitoring and deviations
- Annual certification of compliance

In compliance with reporting requirements

**Other Requirements:**

Comply with the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers. (40 CFR Part 63, Subpart JJJJJJ)- In Compliance

**EUCOATER**

**Unit Description:** One Machine Coater #1

**Emission Limits: In Compliance**

**VOCs:** 12 lb/hr and 7.8 tpy 2017 emissions from Coater: 2.25 tons/year

**Acrylonitrile:** 0.19 mg/m<sup>3</sup>

**Formaldehyde:** 6.3 mg/m<sup>3</sup>

**Particulate:** 0.01 lbs/1000 lbs of exhaust

**Opacity:** 0%

**Process/ Operational Restrictions:** Shall not fire any fuel in the dryers other than sweet natural gas: In compliance, the dryers only operate on natural gas.

**Testing/ Sampling:**

- Shall perform a stack test for particulate matter by June 30, 2016 and thereafter once every three years from the date of the previous stack test: In compliance

**Monitoring and Record Keeping Requirements:**

- Shall monitor and record the paper machine feed rate from the paper machine number 1 on a continuous basis: In compliance
- Shall obtain and keep records of emission

**Reporting:**

- Prompt Reporting of Deviations
- Semiannual reporting of monitoring and deviations

- Annual certification of compliance

In compliance with reporting requirements

**Flexible Groups:**

**FGPAPERMACHINES:**

*Group Description:* Paper Machine #1 and #2, dryers and stacks. Paper machines are a converter of pulp and water mixture into a sheet of uniform thickness. The dryers are used to remove moisture at a predetermined rate.

**Emission Units:** EUPAPERMACHINE1, EUPAPERMACHINE2

***Process/Operational Restrictions:***

Paper machine shall burn only sweet natural gas fuel: In Compliance only burn sweet natural gas fuel

***Reporting:***

- Prompt Reporting of Deviations
- Semiannual reporting of monitoring and deviations
- Annual certification of compliance

In compliance with reporting requirements

**FGSATURATORS&COATERS:**

*Group description:* Paper Machine Nos. 1 and 2 and saturators, Saturator Nos. 15 and 18 and ovens, and Coater Nos. 16, 17 and 19.

**Emission Units:** EUPM1SATURATOR, EUPM2SATURATOR, EUSATURATOR15, EUSATURATOR18, EUCOATER16, EUCOATER17, & EUCOATER19

**Material Limits:** Coatings VOC limit: 2.9 lbs VOC emitted per gallon of coating, minus water: In Compliance

**Testing/Sampling:** The VOC content as applied minus water may be determined from the manufacturer's formulation data derived using method 311: In compliance

***Reporting:***

- Prompt Reporting of Deviations
- Semiannual reporting of monitoring and deviations
- Annual certification of compliance

In compliance with reporting requirements

**FGCOLDCLEANERS**

**Group Description:** Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278



and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

**Material Limits:** Shall not use cleaning solvents containing more than 5% by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethylene, carbon tetrachloride, chloroform, or any combination thereof: In compliance There are three cold cleaners onsite. A copy of the SDS for the ZEP Dyna is attached to the hard file of this report. The solution does not contain any of the above halogenated compounds.

**Process/Operational Restrictions:** Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. In Compliance

Shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. In Compliance

**Design/Equipment Parameters:**

The cold cleaner must meet one of the following design requirements: The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(h)) The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285(r)(iv)) The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b)) All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a)) The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a)) The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. (R 336.1707(2)(a)) In Compliance. *None of the cold cleaners onsite are heated.*

**FGRULE287**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287 (C) The emission unit covered is EUPAINTBOOTH. Coating usage remains under 200 gallons per month. The facility maintains records for coating usage each calendar month. Overspray filters are changed when needed.

**FGEMERGENCYENGINES:**

**Group Description:** Emergency engines exempt from the requirements of Rule 201 pursuant to Rules 278 and 285(g). These engines are used to run the mill, the fire pump and the wastewater treatment system in the event of a power failure.

**Emission Unit:** EUPOWERGENERATOR, EUFIREPUMPGEN & EUWWTPGENERATOR

The facility is recording the hours of operation for each unit and the purpose of operation. The engines are tested weekly for 20 minutes. Hour logs for each unit are attached to the hard file of this report.

**40 CFR JJJJJJ**

Both boilers at the facility are subject to 40 CFR Part 63 Subpart JJJJJJ.

They are currently meeting all CO and Hg limits. The facility has a COM installed on EU05 to verify they remain below 10% opacity while operating. EU15 is a limited use boiler, it was not operated in 2017 or so far in 2018. Flexible groups for this Area Source MACT are currently being added to the most recent ROP renewal.

At the time of my inspection Neenah Paper appeared to be in compliance with MI-ROP-B1470-2013a and all other applicable state and federal air quality regulations.

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DATE 06/14/18 SUPERVISOR ELZ