

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

B642043683

FACILITY: E.B. EDDY PAPER INC.		SRN / ID: B6420
LOCATION: 1700 Washington Ave, PORT HURON		DISTRICT: Southeast Michigan
CITY: PORT HURON		COUNTY: SAINT CLAIR
CONTACT: Christine Loeffler , Environmental Manager		ACTIVITY DATE: 02/01/2018
STAFF: Robert Joseph	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection of this Title V source was performed to verify air quality compliance per Federal and State guidelines		
RESOLVED COMPLAINTS:		

On Thursday, February 1, 2018, I, Michigan Department Environmental Quality-Air Quality Division staff Robert Joseph, and Lauren Magirl, conducted an unannounced inspection of E.B. Eddy Paper (Domtar) located at 1700 Washington Ave, Port Huron, MI 48061. The purpose of the inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) Administrative Rules and conditions of the facility's Title V Renewable Operating Permit, MI-ROP-B6420-2017.

We arrived at the facility about 11am and met with the facility's Environmental Manager, Christine Loeffler. We introduced ourselves and presented our identifications and credentials and stated the purpose of our visit. I asked Christine the nature of the facility's business and she indicated the facility produces stock paper and specialty type papers used for wrapping, packaging, laminating, and other uses. The facility is a Title V major source and has been at its current location since 1898. Christine led us on a tour of the facility's operations as we visited the emission units.

The paper machines (#5, #6, #7, and #8) were installed between 1928 and 1969. Some components of the machines consist of conveyors, screens, pumps, and size presses. The facility still receives starch, clay and pulp via rail located within the facility's property line and mixes the constituents into a wet slurry. This mixture goes into the paper machines where chemical additives are added in a blender. Some additives include sizing agents and dye for coloring.

### **EU-Paper Machine #5**

Paper machine #5 produces regular stock paper and was installed in 1928. It was modified in 1997, and again recently in 2015 when PTI 163-15 was issued for the use of Isopropyl Alcohol (also known as Quilon which is a type of chemical made up largely of isopropanol).

That PTI is incorporated into their current ROP. However, according to Christine the facility no longer uses Quilon. This was verified based on records collected during the department's last visit in August 2016, and verified from records collected for this inspection.

The facility is required to keep daily records of the amount of VOCs containing wet size press additives, monthly records of the usage rate for each paper additive containing VOCs and for a 12-month period, a record of the annual emissions of VOCs in tons per year on a calendar year basis, and a current listing from the manufacturer of the chemical composition of each chemical used including the weight percent of each component.

### **I. Emission Limit**

1. The facility has an Isopropyl Alcohol emission limit of 1144.8 lb./day. The facility no longer uses this additive within the paper machine.

## II. Material Limit

1. The facility is permitted to use less than 3,951 lbs of Isopropyl Alcohol containing wet size press additive paper per day. Facility records show no usage of Isopropyl Alcohol as an additive within their paper machine.

2. The facility shall not use a wet size press additive with an Isopropyl Alcohol content in excess of 29% by weight. Records show the facility does not use any wet size press which contains Isopropyl Alcohol in excess of 29%. Isopropyl Alcohol has not been used as additive by the facility since August 2016.

3. The facility shall not use a wet size press additive with a VOC content in excess of 29% by weight. None of the additives used by the facility has a VOC content in excess of 29% by weight per the records reviewed.

## VI. Monitoring/Recordkeeping

1. The facility is to keep daily records of the amount of VOC containing wet size press additives associated with this unit. Records at the facility were reviewed for the VOC content of 11 wet size press additives associated with this unit.

2. The facility shall keep monthly records of the usage rate of each paper additive containing VOC associated with the operation of this unit for the previous month and 12-month period. The usage of each paper additive was verified for a 12-month period. Records do not show Isopropyl Alcohol usage in 2017, however, the usage rate of 11 other additives with their VOC content were used and recorded by the facility.

3. The facility shall calculate and keep records of the annual emissions of VOC in tons per year on a calendar year basis. Records show an annual emission of VOC in tons per year on a calendar basis of 3.84 tons in 2016 and 2.79 tons in 2017.

4. The facility shall maintain a current listing from the manufacturer of the chemical composition of each chemical used, including the weight percent of each component. The VOC content for each paper additive (12 total) varies between 0.91% and 29% by weight. This is below the 29% permit requirement by weight for a wet size additive per Material Limit #3.

## VII. Reporting

4. The facility shall submit records of VOC emissions in tons per calendar year to both the AQD Permit Section Supervisor and the AQD District Supervisor within 60 days following the end of each calendar year, if both of the following apply:

a. The calendar year actual emissions of VOC exceed the baseline actual emissions (BAE) by a significant amount, and

b. The calendar year actual emissions differ from the pre-construction projection.

Neither of these conditions has occurred.

FG-Paper Machines (Flexible Group Conditions) PM #5, #6, #7, #8**EU-Paper Machine #6**

Paper machine #6 is used to produce specialty type paper but was not in operation during our visit. Color dyes are used in this machine. It is also a grandfathered unit having been installed in 1956.

**EU-Paper Machine #7**

Paper machine #7 is like machine #5 in that it produces regular stock paper. It was installed in 1962 and modified in 1998. The facility is required to record the rate of each paper additive containing VOC, pounds of VOC per gallon of each additive, tons of paper produced based on a 12 month rolling time period and hours of operation. The facility no longer uses 1,2 dibromo-2, 4 dicyanobutane in its process. In addition, a current listing from the manufacture of the VOC content of each paper additive must be documented.

**I. Emission Limit(s)**

1. A VOC limit of 5.3 lbs per hour.
2. A VOC limit of 1.9 tons per month.
3. A VOC limit of 23.2 tons per 12-month rolling time period.
4. A 1, 2-dibromo-2,4 dicyanobutane limit of 47.2 lbs per hour.

**VI. Monitoring/Recordkeeping (Flexible Group Conditions)**

1. The permittee shall keep a daily record of the following, associated with the operation of EU-PM 7 and EU-PM 8;

a. The usage rate of ten (10) paper additives containing VOC was documented detailing the dates of each month in which the additives were used (Liquid Tinting Dye, Cartafix SWE, Impress, Yellow 5GLLN, Blue Dye, Blue Dye 77L, Brill Turq K-RL, Intrabond Blue BTS, Red K-2B, Nalco 7546).

b. The pounds of VOC for each additive was also documented each day. The permit limit is 5.3 lbs per hour and 1.9 tons per month. Recordkeeping information on site was verified that the VOC emission limit was under 5.3 lbs per hour, and under the VOC emission limit of 1.9 tons per month.

c. Facility no longer uses 1,2 dibromo-2, 4 dicyanobutane.

d. Tons of paper produced based on 12-month rolling time period was recorded. Records show that 3.48 tons of paper was produced from January 2016 through December 2016. In addition, 6.40 tons of paper was produced from January 2017 through December 2017. Also, 6.83 tons of paper was produced from February 2017 through January 2018. All were taken as a 12-month rolling time period. There was not any 12-month rolling time period which exceeded the permit limit, and no individual month

exceeded 1 ton. The permit limit is 23.2 tons of VOC per rolling 12 month period.

e. The number of hours that each VOC was in use was recorded each day.

### **EU-Paper Machine #8**

Paper machine #8 is like machine #6 in that it produces specialty type paper. It was installed in 1969 and modified in 1998. The required recordkeeping for this machine is the same as that for machine #7.

#### **I. Emission Limit(s)**

1. A VOC limit of 17.1 lbs per hour.
2. A VOC limit of 4.2 tons per month.
3. A VOC limit of 26.2 tons per 12-month rolling time period.

#### **VI. Monitoring/Recordkeeping (Flexible Group Conditions)**

a. The usage rate of ten paper additives containing VOCs was provided detailing the dates of each month in which the additives were used (Fennostrength 4063, Nalco 61067).

b. The pounds of VOC for each additive was also documented each day. The permit limit is 17.1 lbs per hour and 4.2 tons per month. Recordkeeping information on site was verified that the VOC emission limit was under 17.1 lbs per hour, and under the VOC emission limit of 4.2 tons per month.

c. 1,2 dibromo-2, 4 dicyanobutane recordkeeping usage is required by PM #7. This compound is no longer used.

d. Tons of paper produced based on 12-month rolling time period was recorded. Records show that 3.79 tons of paper was produced from January 2016 through December 2016. In addition, 3.67 tons of paper was produced from January 2017 through December 2017. Also, 3.83 tons of paper was produced from February 2017 through January 2018. All were taken as a 12-month rolling time period. There was not any 12-month rolling time period which exceeded the permit limit, and no individual month exceeded 1 ton. The permit limit is 26.2 tons of VOC per rolling 12 month period.

e. The number of hours that each VOC was in use was recorded each day.

### **EU-Boiler #5**

Boiler #5 was installed in 1968 and modified on 1997. It was converted to natural gas in 2015. Per the permit, the modification in 1997 and the change in fuel in 2015 was not considered a modification or reconstruction under 40 CFR 60 (CFR 60.14 and 60.15) and therefore is exempt from subpart D (Standards of Performance for Fossil Fuel fired steam generators). The stack vents unobstructed.

Per the Process/Operational Restrictions (Part III) and Design Parameters (IV), the boiler is a natural gas-fired boiler rated at 196 MM BTU/hr. It is subject to a NOx limit of 180 lb/MM scf,

and is equipped with low NOx boilers. It has a dedicated fuel meter and exclusively uses natural gas.

In addition, this boiler is an existing source and subject to an area source boiler MACT per 40 CFR Part 63 Subpart JJJJJJ. However, due to 40 CFR 63.11195(e) it is not subject to this subpart since it is a natural gas fired boiler as defined in this subpart.

#### VI. Monitoring/Recordkeeping

1. The facility provided an acceptable format for the required calculations.
2. Natural gas fuel usage was documented by the facility and there are no permit limitations. 107,821 (Gas 1,000 ft<sup>3</sup> used) was the fuel usage during January 2018.

#### **EU-Boiler #6**

Boiler #6 is also a natural gas-fired boiler rated at 25 MM BTU/hr. It was installed in 2002. This boiler also has a dedicated fuel meter.

Since this boiler has a capacity equal or greater to 10 MM Btu/hr, but less than 100 MM Btu/hr, it is subject to 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercials-Institutional Steam Generating Units). The only requirement per 40 CFR 60.40c (a) is reporting and recordkeeping of fuel usage.

This boiler is exempt from a permit to install (R 336.1201) per the following rule for furnaces, ovens, and heaters;

#### **R 336.1282 Permit to install exemptions; furnaces, ovens, and heaters.**

Rule 282. (1) This rule does not apply if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met.

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(b) Fuel-burning equipment which is used for space heating, service water heating, electric power generation, oil and gas production or processing, or indirect heating and which burns only the following fuels:

(i) Sweet natural gas, synthetic natural gas, liquefied petroleum gas, or a combination thereof and the equipment has a rated heat input capacity of not more than 50,000,000 Btu per hour.

#### VI. Monitoring/Recordkeeping

1. Amount of fuel combusted was documented and there are no permit limitations. 3,087 (Gas 1,000 ft<sup>3</sup> used) was the fuel usage during March 2017.

In addition, this boiler is an existing source and subject to an area source boiler MACT per 40 CFR Part 63 Subpart JJJJJJ. However, due to 40 CFR 63.11195(e) it is not subject to this subpart since it is a natural gas fired boiler as defined in this subpart.

### **EU-Boiler #2 and #4**

Boilers #2 and #4 are grandfathered boilers and were installed in 1966 and 1937 respectively and have not been modified. Boiler 2 is rated at 69 MM Btu/hr. and Boiler #4 is rated at 91 MM Btu/hr.

In addition, these boilers are existing sources and subject to an area source boiler MACT per 40 CFR Part 63 Subpart JJJJJJ. However, due to 40 CFR 63.11195(e) they are not subject to this subpart since they are natural gas fired boilers as defined in this subpart.

### **EU-Diesel**

There are two diesel fueled emergency generators at the facility. One has not been operable for years and the facility indicated and do not intend to use it. The other diesel-fired emergency generator uses #2 fuel and is rated at 9.8 MM Btu/hr. It was installed in 1988. Material limits for the fuel oil is a 1.5% sulfur content based on a heat value of 18,000 BTU/lb. This generator is used for the wastewater treatment plant and has a non-resettable meter.

The permit limit for emergency engines is 500 hours per year on a 12-month rolling time period. In order for the engine to be considered an emergency stationary RICE, the engine must not run for more than 100 hrs per calendar year which includes 50 of those hours for non-emergency use.

It is not subject to New Source Performance Standard (NSPS), but it is subject to 40 CFR Part 63 Subpart ZZZZ for a Reciprocating Internal Combustion Engine Maximum Achievable Control Technology (RICE MACT). This includes oil and filter change every 500 hrs operation, or annually, whichever comes first. In addition, air cleaner and spark plugs are to be inspected every 1,000 hours or annually, whichever comes first, and replace as necessary. Also, all hoses and belts every 5000 hrs. of operation or annually, whichever comes first, and replace as necessary.

### **VI. Monitoring/Recordkeeping**

1. Records of maintenance were maintained on the generator.
2. The hours of operation for the emergency generator was recorded and documented whether its use was emergency based or for non-emergency. Readiness checks totaled 10 hours and emergency operation was 3 hours in 2017.
3. There were no malfunction occurrences.
4. There were no records of malfunctions.
5. This generator was installed in 1988 and has a rating of 9.8 MM Btu/hr.
6. The type of fuel used is an ultra-low sulfur #2 diesel. 929 gallons were used in 2017.
7. The hours of operation of the generator had a rolling total of 17 hours throughout 2017.
8. The diesel fuel oil sulfur content used in this engine was less than 1.5%.

### **EU-Starchsilo**

The starch silo receives starch, clay, and pulp via rail and uses a fabric filter as its pollution

control device. It is limited to 0.1 lbs per 1,000 lbs of exhaust gases on a dry basis for particulate matter. Maintenance recordkeeping is required on this emission unit. No emissions were visible during the inspection.

#### VI. Monitoring/Recordkeeping

1. A maintenance log was provided documenting air filter replacement, motor cleanout, other miscellaneous repairs.
2. No visible emissions were reported due to the fact there was no loading of materials to the silo at the time of inspection.

#### Source-Wide Conditions

##### I. Emission Limits:

1. The facility is restricted to less than 8.9 tpy for each individual HAP as determined at the end of each calendar month for a 12-month rolling time period.
2. The facility is restricted to an aggregate HAPS total of less than 22.4 tpy as determined at the end of each calendar month for a 12-month rolling time period.

#### VI. Monitoring/Recordkeeping

2a. Per the facilities records, the individual max HAP total varied between 0.1 to 0.2 tons per month, and the aggregate HAP total varied between 0.8 to 1.2 tons per month during the reporting period between August 2016-January 2018.

2b. Per the facilities records, the 12-month rolling individual max HAP total varied between 1.3 to 2.1 tons per year (less than the permit limit of 8.9 tpy), and the 12-month rolling aggregate max total varies between 10.4 to 12.5 tons per year (less than the permit limit of 22.4 tpy) during the reporting period between August 2016-January 2018.

#### Miscellaneous Exempt Processes

The facility uses a water based solvent which contains no VOCs as cold cleaner. The wastewater treatment plant discharges effluent into the St. Clair River and permitted through a National Pollutant Discharge Elimination System (NPDES) permit.

#### Conclusion

This concluded the tour of the facility. We thanked Christine for her time and left the facility shortly after 1pm. Based on the AQD inspection and records review, it appears that E.B. Eddy Paper is in-compliance with the Federal Clean Air Act, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the conditions of MI-ROP-B6420-2017.

NAME Robert Joseph

DATE 04/01/18

SUPERVISOR SK