

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

A647549487

FACILITY: Zellar MPI Equipment		SRN / ID: A6475
LOCATION: 402 West Elk Street, MANISTIQUE		DISTRICT: Upper Peninsula
CITY: MANISTIQUE		COUNTY: SCHOOLCRAFT
CONTACT: MARK OZOGA , ENVIRONMENTAL MANAGER		ACTIVITY DATE: 07/10/2019
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Onsite Inspection to verify compliance with MI-ROP-A6475-2014 and all other applicable state and federal regulations		
RESOLVED COMPLAINTS:		

On July 10, 2019 I (Sydney Bruestle) performed an onsite inspection of Zellar MPI Equipment (UP Paper) located at 402 West Elk Street in Manistique Michigan. While onsite I met with Mark Ozoga, Environmental Manager at UP Paper. Mr. Ozoga gave me a site tour and explained the processes covered by the ROP. After the tour, we went over required records (emission records are attached to the hard file of this report)

Source Description:

Zellar MPI Equipment (UP Paper) recycles newsprint and produces specialty paper products. Permitted equipment onsite includes a natural gas fired boiler rated at 186.8 MMBtu/hr used for steam production (EUBLR004), a paper dyeing process (EUDYE001), Process Chemicals used to make paper products (EUPROCESS), and a 99 MMBtu/hr natural gas boiler (EUBLR003) only brought onsite when EUBLR004 is down. There are two coal fired boilers still onsite that are no longer in use, they are being decommissioned. The facility shut down March 25, 2015 and was purchased and reopened June 15, 2016.

Regulatory Analysis:

When the coal fired boilers were in operation, the stationary source was subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit (PTE) of carbon monoxide, nitrogen oxides and sulfur dioxide each exceeded 100 tons per year. Also, the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, was equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined was more than 25 tons per year, and the potential to emit of Greenhouse Gases was 100,000 tons per year or more calculated as carbon dioxide equivalents (CO2e) and 100 tons per year or more on a mass basis. Since installing the natural gas boiler and decommissioning the coal fired boilers the facility has significantly decreased their potential to emit emissions for all the pollutants mentioned above. The facility submitted an ROP renewal application in March 2019, upon review I requested new PTE calculations (because equipment has been removed and added). They submitted new PTE calculations on May 9, 2019 showing the facility is below the Part 70 thresholds. The facility is working on submitting a new Permit to Install (PTI) application (to cover equipment onsite) and plans to void the ROP once a PTI is issued.

Below is a description and summary of compliance for each emission unit covered by MI-ROP-A6475-2014 and other applicable federal air quality regulations:

EUBLR003

Description: 99 MMBtu Boiler fired on natural gas and No. 2 fuel oil. This is a portable boiler brought onsite only when EUBLR004 is down. The Zellar MPI has not brought a portable boiler onsite since 2012.

Emission Limits (SC I. 1-5):

Pollutant	Limit(s)	Actual/Compliance Demonstration
NOx	14.35 pph 26.4 tpy	Zellar has not operated EUBLR003 in 6 years. They are no current emission records for this unit
SO2	50.94 pph 27.8 tpy	
PM	0.1 lbs/1000 lbs exhaust gas	

Material Limits/Design Equipment Parameters (SC II. 1-4; SC III. 1; SC IV. 1-2):

EUBLR003 is limited to 775,000 gallons per year of No. 2 fuel oil, there has been 0 gallons of fuel oil burned in the last 5 years. This boiler is also limited to 867,240 MMBtu/year of heat input, the heat input for EUBLR003 is 0 MMBtu/year for the last 5 years. The next time this boiler is operated (brought onsite) the sulfur content of the fuel must remain below 0.5 % by weight.

The portable boiler brought onsite under EUBLR003 shall not exceed a heat input capacity of 99 MMBtu/hr. The facility is aware if they need a larger boiler in the future they will need to apply for a new permit.

Testing/Sampling/ Monitoring and Record Keeping (SC V. 1; SC VI. 1-5):

The Air Quality Division (AQD) has the authority to request emissions testing for NOx, SO2, and PM from EUBLR003. Monthly fuel use records, heat input calculations, and NOx and SO2 emission records shall be kept monthly, any time the boiler is operated.

Reporting (SC VII 1-3):

Prompt reporting of deviations is required for EUBLR003. Semiannual and Annual compliance certifications should be submitted by March 15 and September 15 each year.

Other Requirements (SC IX. 1-2): This facility is subject to New Source Performance Standard (NSPS) 40 CFR Part 60, Subparts A & Dc). The facility has a fuel oil sulfur limit and required record keeping covered in this permit to verify SO2 emission limits are met.

EYDYE001:

Description: Paper Dyeing process. This process has not operated since 2014.

Emission Limits (SC I. 1-2):

<i>Pollutant</i>	<i>Limit</i>	<i>Actual/Compliance Verification</i>
VOCs	9.1 pph	Zellar has not operated EUDYE001 since 2014. They do not have emission records for the last 5 years.
VOCs	26.7 tpy	

Process Operational Restrictions/Monitoring and Record Keeping (SC III. 1; SC VI. 1-3):

Zellar MPI maintains tank covers on each dyeing unit. They don't have plans to use this system, but they will keep it permitted for future orders that may require it. The facility maintains records for VOC contents and usage rates of each dye and VOC emission calculations when this process is operated.

Reporting (SC VII. 1-3):

Prompt reporting of deviations is required for EUDYE001. Semiannual and Annual compliance certifications should be submitted by March 15 and September 15 each year.

EUPROCESS:

Description: Paper manufacturing process chemical use.

Emission Limits (SC I. 1-3):

<i>Pollutant</i>	<i>Limit</i>	<i>Actual/Compliance Verification</i>
VOC	82.3 tpy	11.59 tpy (January 2019)
VOC (Kerosene)	349 lbs (kerosene per 8 hr shift)	0 lbs the facility no longer uses kerosene onsite
VOC (Petroleum Distillates)	18.72 tpy (petroleum distillates)	0 tpy the facility no longer uses

		petroleum distillates in this process
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Monitoring/Record Keeping (SC VI. 1-2):

The facility records usage rates and calculates VOC emissions for all chemicals used in EUPROCESS. VOC records are attached to the hard file of this report.

Reporting (SC VI. 1-3):

Prompt reporting of deviations is required for EUPROCESS. Semiannual and Annual compliance certifications should be submitted by March 15 and September 15 each year.

EUBLR004

Description: Natural Gas fired boiler rated at 186.8 MMBtu/hr for steam production. The boiler is equipped with low NOx burners and flue gas recirculation.

Emission Limits (SC I. 1-2): (records attached to the hard file of this report)

<i>Pollutant</i>	<i>Emission Limit</i>	<i>Actual/Compliance Verification</i>
NOx	0.20 lb/MMBtu (30-day average)	June 2019: 0.039 lb/MMBtu
GHGs as CO2e	74,975 tpy (12 month rolling time period as determined at the end of each calendar month)	June 2019: 63,899

Material Limit (SC II. 1-2):

The facility uses only pipeline quality natural gas and does not exceed 1,247 MMcf per 12 month rolling time period. Natural Gas usage records are attached to the copy file of this report, In June 2019 the 12-month rolling time period usage was 1,087.4 MMcf.

Design/Equipment Parameters (SC IV. 1-4):

The maximum design heat input capacity of the boiler is 186.7 MMBtu/hr. The low NOx burners are maintained and operated properly, and the facility operates a Predictive Emission Monitoring System (PEMS) to monitor and record NOx emissions.

Monitoring/ Record Keeping (SC VI. 1-8):

Zellar MPI operates a PEMS to verify NOx emission rates. They perform an annual RATA test to verify system accuracy, the last test was performed 12/18/2018. The facility submits quarterly PEMS reports, the last report was submitted April 25, 2019. They keep monthly natural gas usage records and maintain monthly and 12 month rolling time period records of the annual capacity factor for natural gas. The 12-month rolling average was 0.69 tpy in June 2019. Zellar MPI maintains monthly and 12 month rolling time period records for CO2e emissions. June 2019 CO2e emissions were 5,397 tons (monthly) and 63,899 tpy (12 month rolling time). Records are attached to the hard copy of this report.

Reporting (SC VII. 1-6):

Prompt reporting of deviations is required for EUBLR004. Semiannual and Annual compliance certifications should be submitted by March 15 and September 15 each year. The facility sent a written notification of initial start up of EUBLR004 on 03/04/2015, the boiler was initially started 02/19/2014.

FGBLRS

Description: Coal fired boilers #1 and #2 are rated 96 and 97 MMBtu/hr respectively. These boilers are no longer in operation and will be removed from the ROP this renewal period. Removal of these two units has resulted in an emission decrease at the facility. According to recently submitted Potential to Emit (PTE) calculations the facility appears to no longer be a major source under Title V. The PTE

calculations are attached to the hard file of this report. They are currently working on a PTI application to cover current equipment and will void the ROP once this is issued.

FG63-5D-NEWGAS1BOILER

Description: New boilers and process heaters subject to 40 CFR Part 63 Subpart DDDDD in the Natural Gas burning category. After the removal of the coal fired boilers the facility is no longer a major source for HAPs and therefore is not subject to this standard. This language will be removed from the ROP during the current renewal period. The facility's most recent PTE calculations for HAP emissions are attached to the hard file of this report.

Compliance Determination:

At the time of my ins-2014 inspection it appeared Zellar MPI Equipment was following the requirements of MI-ROP-A6475-2014 and all applicable state and federal air quality regulations.

NAME 

DATE 07-31-19

SUPERVISOR 