

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

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| FACILITY: GRAPHIC PACKAGING INTERNATIONAL, INC. | | SRN / ID: B1534 |
| LOCATION: 79 E. FOUNTAIN STREET, BATTLE CREEK | | DISTRICT: Kalamazoo |
| CITY: BATTLE CREEK | | COUNTY: CALHOUN |
| CONTACT: Evert VanderBerg , HSE Manager | | ACTIVITY DATE: 09/02/2015 |
| STAFF: Rex Lane | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MAJOR |
| SUBJECT: Self Initiated Inspection | | |
| RESOLVED COMPLAINTS: | | |

On September 2, 2015, Air Quality Division (AQD) staff, Rex Lane and Monica Brothers (hereafter "staff") arrived at Graphic Packaging International, Inc. (hereafter "facility") located at 79 E. Fountain Street, Battle Creek, Michigan at 8:45 a.m. to conduct an unannounced air quality inspection. Staff made contact with Mr. Evert VanderBerg, HSE Manager and stated that they would like to conduct an unannounced air quality inspection of the facility. Staff presented Mr. VanderBerg with their inspector credentials and provided him with a business card and a copy of MDEQ's Environmental Inspections brochure.

The facility is a 100% recycled paperboard plant that produces 14 – 26 point paper roll stock on two paper machines for consumer packaging. The facility does not have package printing operations at this mill. The facility employs over 200 associates and operates two 12-hour shifts, seven days per week.

The facility was considered to be a major source for nitrogen oxides and sulfur oxides and currently operates under ROP MI-ROP-B1534-2011. On April 8, 2015, the facility was issued Permit to Install (PTI) No. 9-15 for the rebuild of paper machine # 2; combining the emission limits for paper machine # 1 and # 2 and requires installation of low-NOx burners and restricts the boiler to combustion of pipeline grade natural gas only. The facility submitted their ROP renewal application on June 11, 2015 and PTI No. 9-15 will be rolled into the ROP renewal.

During the pre-inspection meeting, staff asked Mr. VanderBerg about the status of the two 50,000 gallon # 6 oil tanks in the basement of the facility. He said that the remaining oil was removed by a contractor and one tank has been cleaned out and pressure tested and the second tank still needs to be cleaned and pressure tested. The oil feed piping to the boiler has also been removed. The facility is getting bids to remove the tanks and add additional storage capacity for clay. The mill was shut down in early May 2015 for preventative maintenance and to rebuild paper machine # 2 and install the low NOX burners and heat recovery system on the boiler. The boiler is required to undergo emission testing to demonstrate compliance with the NOX emission factor associated with the low NOX burner technology data used in the permit application. Mr. VanderBerg stated that the boiler emission testing is scheduled for the last week of October 2015. The facility does not currently have any emergency generators.

Mr. VanderBerg then gave staff a tour of the facility. Required PPE is a hard hat, safety glasses and steel toed boots. Paper machine # 1 was down for scheduled maintenance. Information provided below is based on observations and discussions during the inspection and records requested and provided during and following the inspection:

The facility has four natural gas space heaters with maximum design capacity of 3 - 5 MMBtu/hr. that are exempt from air use permitting under Rule 282(b)(i). Each paper machine is equipped with a natural gas fired coating drying oven with maximum design capacity of 5 - 6 MMBtu/hour. The facility has a paper rewind machine which vents internally and is exempt under Rule 285(I)(vi)(B). Trimmed scrap paper is fed back into the dry end beaters on each paper machine. The facility has recently installed a core cutter to trim the cardboard tubes for the paperboard stock rolls to desired length near the maintenance area. The core cutter process vents internally and is exempt from permitting under Rule 285(I)(vi)(B).

EUBLR001:

A 140,000 pound steam/hour Babcock and Wilcox boiler used for production of process steam and

electricity (steam turbine). The boiler was taken down in early May 2015 to install low NOX burners, to remove the capability to fire fuel oil and install a waste heat recovery system. The installed low NOX burners are two 88.50 MMBtu/hr. Variflame Burner designed by John Zink Hamworthy under Sales Order No. 9156251. At the time of the inspection, the boiler was operating at about 55,000 lbs. steam/hour (~39% load) and was generating about 3800 Kw/hour through the back pressure steam turbine. The most recent energy assessment evaluation determined that the boiler was operating at 82% efficiency. The normal steam load is about 95,000 lbs. steam/hour when both paper machines are operating. No visible emissions were observed from the boiler stack when staff arrived at the facility. Per boiler personnel, an internal boiler inspection is done during the annual plant shutdown in May.

Staff did not evaluate the ROP permit conditions pertaining to fuel oil use under EUBLR001 due to the issuance of PTI No. 9-15 and removal of fuel oil firing capability. Based on a review of boiler operating records, the facility is maintaining daily, monthly and 12-month rolling fuel usage, daily hours of operations, and nitrogen oxides emissions on a daily, monthly and 12-month rolling average. The current 12-month rolling average for natural gas throughput is 1,148 MMscf/year (72% of limit) and 80.4 tons/year for nitrogen oxides which is approximately 84% of allowable limit under PTI No. 9-15.

EUPAPERMACH1 (PTI No. 9-15 combines EUPAPERMACH1/2):

Paper machine No. 1 is a 95-inch web paperboard stock machine that includes a wet and paperboard coater # 1 and drying oven # 1. The paper machine was down for scheduled maintenance during the inspection. The facility last used paraffinic oil in August 2010 and the allowed use has been removed with issuance of PTI No. 9-15, therefore, staff did not evaluate permit conditions associated with the use of this product. Paper machine No. 2 is a 120-inch web paperboard stock machine that includes a wet and paperboard coater # 2 and drying oven # 2. The paper machine was operating during the inspection.

Facility maintains VOC and HAPs content for each coating and other chemicals (i.e. wet end process) and operating hours for each paper machine, VOC emissions on daily basis, monthly and 12-month rolling average and individual and total HAPs on a monthly and 12-month rolling average. Based on a review of emission records submitted via email following the inspection for the time period July 2014 through July 2015, the highest hourly and 12-month rolling acetaldehyde emission rates were 52% and 33%, respectively of their allowable limits. The highest calendar day average VOC emissions noted were about 40% of the allowable limit. The highest individual and combined 12-month rolling HAPs emission rates were about 14% and 20%, respectively of their allowable limit. Vinyl acetate was the highest individual HAP recorded at 0.53 tons/12-month rolling average. On a monthly average, all coatings used on both paper machines must be less than or equal to 0.05 pounds VOC per gallon of coating minus water, as applied. In 2014, pre-coat formulas ranged between 0.014 – 0.015 lbs. VOC/gallon coating minus water as applied and top coat formulas ranged between 0.016 – 0.019 lbs./VOC gallon coating minus water as applied in compliance with Condition I.7.

EUSTARCHSILO:

Facility maintains a daily coating room inventory report that includes a check of starch level in silo and a section for checking for visible emissions during loading of the starch silo. Staff obtained copies of the inventory report for 7/6/15 and 7/21/15 (attached) which indicates no visible emissions during starch deliveries. Per the inventory report form, the facility is required to discontinue unloading of starch if dust is observed and contact maintenance for repairs. This complies with the requirements of condition IX.1. The silo was not being loaded at the time of the inspection. The facility performs PM checks on the baghouse controls once every two months.

FGCOLDCLEANERS:

Facility currently has five cold cleaners in use around the mill and continues to use Crystal Clean 106 mineral spirits. The solvent MSDS sheet was reviewed during the previous 2013 AQD inspection and determined that the solvent does not contain any halogenated compounds. Staff observed one cold cleaner that was in use in the maintenance area. Staff provided Mr. VanderBerg with several DEQ cold cleaner stickers so that they could replace any worn out labels.

At the time of the inspection and based on a review of material usage, inspection and emission records obtained during or following the inspection, it appears that the facility is in compliance with the

requirements of MI-ROP-B1534-2011 and currently applicable requirements of PTI No. 9-15. -RIL

NAME RIL

DATE 9/22/15

SUPERVISOR NA 9/22/2015