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

B167832559

FACILITY: GRAPHIC PACKAGING INTERNATIONAL, INC.		**SRN / ID:** B1678
LOCATION: 1500 N. PITCHER ST., KALAMAZOO		**DISTRICT:** Kalamazoo
CITY: KALAMAZOO		**COUNTY:** KALAMAZOO
CONTACT: Donald Krug , EHS Manager - Mill		**ACTIVITY DATE:** 12/16/2015
STAFF: Dennis Dunlap	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection		
RESOLVED COMPLAINTS:		

This was not an announced inspection. Don Krug is the contact person for Section 1 of the ROP. Spencer Macko is the contact person for Section 2 of the ROP. The inspection brochure was handed out. It was mentioned that AQD received an odor complaint on Dec. 3. At that time AQD did not verify a Rule 901 violation. AQD did detect strong odors just across the river west-southwest of the clarifier, but the odors did not go further west than Riverview. Graphic Packaging also confirmed that there were odors on this day. It was also mentioned that AQD had received a call fro the Kalamazoo WWTP that fallout was seen on some vehicles several weeks ago. This facility is minor for HAPs based on the source-wide table in the ROP, thus the boilers are not subject to the boiler MACT.

Records were looked at first. Section 1 Mill

For the source-wide table in the ROP HAPs were within the permit limits. Based on a 12-month rolling average combined HAPs were about 7.8 tons/yr. For single HAPs the max was about 2.9 tons per year.

Boiler #7 was last used in June, 2015. Hours of operation and natural gas usage was recorded for Boiler #8. Boiler #8 has a NOx CEMs. NOx is recorded during the ozone season, May 1- Sept. 30. Oil was last used in the boilers in the 2nd quarter of 2009. There is an 85,000 gallon outside storage tank for oil.

For Boiler #9 pound per hour, tons per year, and pounds per million btu are recorded for NOx. The total gaseous non-methane organics emission rate in pph is also being calculated. This boiler needs to be tested for NOx and gaseous non-methane organics during the term of the current ROP. This boiler has a NOx CEMs. The NOx emission rate is calculated from data obtained from the CEMs. Daily automatic calibrations are done. The NOx data logger was showing 0.28 lbs per MMBtu, 4 lbs/hr, and 24 ppm. The emission rates were in compliance.

The K1 paper machine was built in the 90's and produces paper in three layers: a top layer that accepts coating, a filler layer, and a bottom layer. This machine is on the north side of the property. It is capable of producing 1000 tons of paper per day.

According to emission records total VOC was about 9 tpy, formaldehyde 1.8 pounds (just trace amounts in some materials), acrylonitrile 0, acrylamide 24 pounds, and acetaldehyde 1,900 pounds. These are within permit limits. Two types of coating are used, curtain coating and bar coating. The VOC content of these were 0.007 and 0.001 lb per gallon minus water as applied.

Two stacks associated with the K1 vacuum system were examined on the roof. The inside of the stacks appeared to be clean. The lower stack (further north) was near a blue section of the building with windows. These windows appeared to be caked with a white substance that did not rub off. However, it is not known how long the windows were like this. It was recommended that the windows be cleaned off. They may be a means to detect any fall out. No visible emissions were observed at the time. The other stack was on a higher part of the building. Here no visible emissions were seen. On the outside of the stack and around it on the roof was sludge-like material that looked like it had been there for quite a while.

The K3 paper machine was built in the 50's and is an 8 layer machine. It can produce one third of what K1 can. The VOC emission rate is about 1.22 tons per year (12-month rolling average). Formaldehyde, acetaldehyde and acrylonitrile were within permit limits. The VOC content of the coating was 0,001 lb/gal for the air knife and the same for the bar coating.

EUCONVERTDEPT- according records the inks are meeting the 2.9 pounds of VOC per gallon of coating minus water as applied limit.

EU01GASTANK- according to records the gasoline use is much less than 10,000 gallons per month (around 280 gallons per month).

FG-RULE290- EUCONVERTETYHLACETATE- although less that one drum is used per month they assume that an entire drum is used. This calculates to just over 400 pounds per month of ethyl acetate. EUMILLCYCLONES- monthly PM is calculated for this.

FG-RICE-MACT4Z- this a fire pump subject to 40 CFR Part 63 Subpart ZZZZ. They do an inspection every 6 months. The last inspection was 10/26/15. The one before that was 4/14/15. There is an inspection checklist. The checklist contains information about oil changes and inspection of the air filter, belts and hoses. The fire pump has a hour meter.

There is a Rule 290 group that does not appear in the ROP. This is for silicone that is sprayed on pallets. Total VOC, hexane isomers, and n-hexane are tracked.

Section 2 Carton Plant

FGWEBPRESSES. This consists of 6 presses (offset). Paper made in the mill is taken and printed and packaging (cartons) is made for various products such as cereal and Kleenex. The presses are arranged into three groups in the ROP. These are presses #1, #2, and #3, #4 and #5, and #6. Each of these groups have their own emission limits. According to records the VOC emissions are (based on a 12-month rolling average) 12-13 tpy (also 4 pph), 8-9 tpy, and 3.5 tpy, respectively. These meet permit limits. The fountain solution is 0.59% VOC by weight and this is meeting the permit limit of 5%. The total non-volatile fraction of the inks and coatings is over 60%. The inks are UV-cured. Videojet printers are used to print information on some cartons. This adds about 175 lbs of VOC per year to the web presses because this is tracked here.

FGRULE 290. This consists of 7 separate gluers, EUGLUER#1-EUGLUER#7. The VOC is calculated monthly and is in compliance with Rule 290. EUCARTON290ETAC- ethyl acetate is used. This is about 15 pounds per month.

Walkthrough

Carton Plant

FGWEBPRESSES- There are 6 presses (offset). Press 6 is a Kamori. It is composed of towers each with a different ink application area. Each tower has a UV-curing light. Paper is fed through the printer and the different colors are applied. The paper is then cut into appropriate sizes to make cartons. Each printer has a color booth where the final colors are checked with the original. Rags with a solvent are used to clean off inks on the machines. The solvent is stored in a closed container at each press. When finished the rags are disposed of in a closed container. The inks are stored in closed containers. The ink is transferred from the containers to the towers. The ink has a thick consistency.

Pieces of paper from the cutting operations are conveyed by ducts to the baler room. The paper is put into bales and goes back to the mill for reuse. There is a dust collector here that emits back into the room. This is exempt by Rule 285(l)(vi)(B).

FGCOLDCLEANERS- Five cold cleaners were seen. Two in the cassette room, 2 in the blanket room, and one in the maintenance shop. All had the lids closed and rules posted.

FGRULE290. This consists of seven gluing machines. The cartons from the web presses are fed into the machines. They may go into a collator first to separate out colors. The gluing machines fold the cartons and glues the carton together usually only in one place. At the time of the inspection a yellow glue was being used to glue a plastic film on Kleenex cartons. A video jet printer may add a time label to

the carton. The cartons remain flat and are packed in boxes. The customer will form the carton into a box.

In the ink lab colors are mixed and tested. There is a small UV curing machine here to cure the inks used for testing. It has a vent that goes out of the ceiling. This machine may be exempt by Rule 283(a) (ii). Ethyl Acetate is used in the ink lab (EUCARTON290ETAC).

Mill

Both K1 and K3 were operating. K1 has a drying oven while K3 uses presses to remove water.

Building 6. This building is for storage of raw stock. There are four pulpers here, each for different kind of paper. The pulpers can feed into K1 or K3, or the raw pulp may be stored until needed.

Treatment Plant. Wastewater comes here for solids removal. There is one clarifier. From the clarifier the water may go back into the plant or be diverted to the Kalamazoo WWTP. The solids from the clarifier are collected and conveyed to a pad. They are hauled to a Class II landfill. There were no odors from the sludge. Normal paper odors were detected at the clarifier. The wind was from the southeast. The weather station is now located here for the plant.

No unusual odors or visible emissions were seen during the inspection.

NAME Dennis Dunlap DATE 12/18/15 SUPERVISOR MD 12/21/2015