

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

B201346606

FACILITY: Ox Paperboard of Michigan, LLC		SRN / ID: B2013
LOCATION: 700 CENTREVILLE RD, CONSTANTINE		DISTRICT: Kalamazoo
CITY: CONSTANTINE		COUNTY: SAINT JOSEPH
CONTACT: Dan Schillinger , Plant Engineer		ACTIVITY DATE: 10/10/2018
STAFF: Dennis Dunlap	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

This was an unannounced inspection. Dan Schillinger was the contact person. Dennis Dunlap was the contact person for AQD. The facility operates 2-3 shifts per day 7 days per week. The facility makes paperboard which has a plastic or foil covering on one side.

Recycled paper is used. This consists of 50-80% old corrugated and 20-50% old waste. A conveyor places the recycled paper in the pulper (beater). From the pulper the pulp goes to a cleaner to remove plastic and metal, and then back to the pulper. From here the pulp goes to a dump chest, then to a cleaner, then to a thickener chest, then to a supply chest, then to a refiner, then to a machine chest, then to the paper machine at the cylinder boards. There are 10 cylinders although usually only 8 are used to make 8-layered paperboard. There is dryer portion at the end of the paper machine. At the end of the process the paper board is wound into rolls. Before being wound a frictionator (FennoSlip 35) is sprayed onto the paper. Products added to the paper machine include brown dye (Royce brown Passaic), FennoTech 3016 (Defoamer, needs to be added to the recordkeeping sheet), CS-301HS Polymer, and sizing agents (Del Pac and Nue Roz). The sizing agents are stored inside in two 1,500 gallon tanks. The brown dye, polymer, and defoamer contain VOC and need to be kept on the paper machine record keeping sheet. FennoSlip 35 contains glycerol (8% by weight and it is a VOC) and will need to be added to the recordkeeping. Other products used include HFS for pH adjustment of the stock solution and a felt wash. No coating is done on the paper machine. According to the supplier of Royce brown Passaic dye most of the acetic acid (20-30%) is converted to acetate salts and less than 1% is emitted as VOC.

There is a clarifier inside the beater room for water that has gone through the paper machine. The water and solids are reused.

Much of the paper receives a plastic coating (one side) in an extruder machine. This is exempt by Rule 286(2)(a). Plastic beads are stored in an outside silo. The beads are delivered by rail car. The beads are conveyed to the extruder machine where they are heated and melted, and a plastic coating is rolled onto the paper. The paper is heated before the plastic coating is applied. An aluminum film may be applied also on this machine. Near this machine is a flexographic printer (EUFLEXOPRESS2) that is not used.

After the paper receives a plastic coating it goes to the lamination machine (EULAMINATOR). Here 2-5 layers of paper are laminated together using a polyvinyl acetate glue (Pvol). The plastic coating side goes through a flexographic printer (EUFLEXOPRESS1). This prints identification markings. The glue contains methanol (about 0.5%) and is tracked in a Rule 290 table. The ink used in the printer is low VOC and is also tracked in a Rule 290 table. The sides of the paper are then trimmed, and the paper is cut into sheets. Cuttings are conveyed to the pulper. There is also another cutting machine that has cuttings conveyed to the pulper.

Cuttings used to be conveyed to a cyclone on the roof and an outside dust collector. A fire in June of 2017 disrupted this process and now the cuttings are conveyed to the pulper inside the beater room. The cyclone/dust collector system is planned to be repaired in 6-8 months.

There are two Babcock and Wilcox boilers in the boiler room. The south boiler is used the most. These were installed in 1966 and the burners were modified in 1986. They are natural gas-fired but have the capability to use #6 oil. There are two tanks outside near the plastic bead silo for oil. They contain no oil. It is not planned for the boilers to use oil and the oil tanks may be removed in the future. The boilers are not subject to 40 CFR Part 60. Natural gas usage for the boilers is tabulated monthly.

There is a clarifier outside for wastewater. Sludge from the clarifier is reused in the plant. Wastewater is sent to Constantine. There are 330 gallon plastic totes and 500 gallon aluminum totes to store caustic that is used for pH adjustment of wastewater. There is a discharge to the river for non-contact cooling water.

There is a vacuum room where equipment is used to draw off excess water from the paper machine cylinders. This water goes to the clarifier inside the beater room.

In the firehouse there is a fire pump. It is subject to 40 CFR Part 63 Subpart ZZZZ. It uses low sulfur diesel fuel (15 ppm sulfur). It is run every two weeks for 15 minutes. In June of 2017 it ran for 1.5 hours because there was fire at the plant. It has an hour meter. It is serviced once per year that includes an oil change.

One cold cleaner is located in the shop area. This was not seen.

Recordkeeping consists of excel spreadsheets. These are maintained by the consultant and are available at the plant. These include boiler natural gas usage, laminator VOC, flexographic VOC, paper machine VOC, and HAP. Methanol in the laminator glue accounts for most of the HAP. Total HAP from Sept., 2017 through August, 2018 was 2.34 tons.

The facility updated the paper machine recordkeeping sheet to include the defoamer (FennoTech 3016, 1% VOC) and FennoSlip 35 (8% VOC). Monthly VOC emissions of defoamer are about 17 pounds and for FennoSlip 35 they are about 19 pounds.

MONTHLY VOC EMISSIONS OF VOC FROM THE THREE RULE 290 GROUPS ARE: EULAMINATOR, 100-417 pounds; EUFLEXOPRESS1, 2.3-5.1 pounds; EUPAPER MACHINE, about 81 pounds.

NAME Dennis Dunlop

DATE 10/25/18

SUPERVISOR MA 10/26/18