

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

A708323370

FACILITY: Michigan Box Company		SRN / ID: A7083
LOCATION: 1962 Trombly, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Jim Ribble , Plant Manager		ACTIVITY DATE: 10/10/2013
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: FY 2014 Self Initiated Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Self-Initiated Inspection

INSPECTED BY: Todd Zynda, AQD

PERSONNEL PRESENT: Jim Ribble, Plant Manager

FACILITY PHONE NUMBER: 313-873-9500

FACILITY WEBSITE: www.michiganbox.com

FACILITY BACKGROUND

Michigan Box Company (MBC) was founded in 1927 and is currently located at 1962 Trombly, Detroit, Michigan. Industrial and commercial businesses are located to the north, south, east, and west of MBC. Interstate 94 (I-94) is located immediately adjacent to the south of the property. The nearest residential properties are located approximately 0.2 mile to the southeast. The facility currently has 35 employees and operates from 6:00 AM to 4:30 PM. A second shift is added if production demand warrants additional product output.

PROCESS OVERVIEW

MBC manufacturers corrugated packaging products. The facility consists of a manufacturing area, office/design area, and warehousing/storage area. Unfinished corrugated sheets of paper are combined and cut for production of corrugated shipping cartons (customer specific cardboard boxes). If requested by the customer, the boxes are printed with water-based inks. Manufacturing operations at MBC are certified for food contact, as several customers are food companies.

MBC operates five (5) cutting machines that cut or punch card board to customer specifications. Cuttings are collected via a conveyor system and duct work that uses negative pressure to "suck up" cuttings. Cuttings are then transported to cyclone collector (34,000 cubic feet per minute [ft³/min] capacity) located on the southeast corner roof. Cuttings from the cyclone collector fall down from the bottom of the cyclone to a bailer machine located inside the warehousing portion of the facility. The bailer presses cuttings into bundles which are shipped off for recycling. In addition, MBC operates a paper shredder. Material from the paper shredder is directed to the cyclone collector where the material is collected and bundled with material from the cutting machines.

COMPLAINT/COMPLIANCE HISTORY

There are no citizen complaints or recent inspections for this facility on file.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On October 10, 2013 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda conducted a level 2 unannounced inspection of MBC located at 1962 Trombly,

Detroit, Michigan. During the inspection, Mr. Jim Ribble, Plant Manager, provided information and a tour of facility operations relating to air quality regulations and permits. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, and Wayne County Installation Permit C-8005.

At 10:10 AM, Mr. Zynda arrived onsite and performed outside observations. No visible emissions were observed at the facility (specifically from the cyclone located on the roof). No odors were detected during the site inspection. At 10:25 AM Mr. Zynda entered the facility, stated the purpose for the inspection, and was greeted by Mr. Ribble.

During the opening meeting facility operations were discussed. Mr. Ribble described plant operations, cutting collection, recycling operations, and cyclone maintenance. As described above the cyclone is used for the collection of cuttings from the five cutting machines located in manufacturing area. According to Mr. Ribble, the cyclone collector is operated on a daily basis (whenever cutting machines are in operation). Material collected by the cyclone is bundled for recycling on a daily basis. Waste material that is bundled is sold for recycling at \$130 a ton. Therefore, it is in MBC's best interest to make sure the cyclone is operating correctly to maximize material collected for recycling sale. Mr. Ribble provided a copy of the bill of lading for shipped scrap material for recycling to demonstrate that material is collected and sold on a regular basis (Attachment A). Additionally, Mr. Ribble stated that an additional blower was added to the waste collection system as the vacuum required to transport the paper cuttings was lost after the new configuration of cutting machines.

Following the opening meeting, a tour of the facility was conducted. During the tour the five cutting machines and the associated waste material collection system were observed. Cuttings from the machines vary in size depending on the product being manufactured. Cuttings range in size from one square inch (in²) to 6 in².

Following observation of the manufacturing area, the southern parking lot, which is used for parking semi-truck trailers, was observed. According to Mr. Ribble, the back lot has less than 10 vehicles traveling on it per day. Mr. Ribble explained that he recently had the lot resurfaced with crushed asphalt in an effort to reduce fugitive dust and track out.

The tour concluded with observation of cyclone collector, the bailer, and paper shredder. Observation of the cyclone was conducted from the roof. Ductwork connecting the cyclone and the cyclone itself appeared to be in good condition. During the inspection, the cyclone was operating under normal conditions. Opacity was not observed. The bailer and paper shredder, which are located inside the facility below the cyclone roof location, also appeared to be good condition. According to Mr. Ribble the bailer is an automated process. Once enough scrap material is stockpiled, the bailer bundles the material for recycling. The paper shredder material output is controlled by the cyclone. At the time of the inspection, Mr. Ribble was notified that the paper shredder may require a permit to install (PTI). It was discussed that the original permit files and PTI exemption rules would be reviewed to determine if the paper shredder is subject to PTI requirements.

After further review it was determined that the paper shredder is not subject to PTI requirements. In review of the micro-fiche files for Wayne County Installation Permit C-8005, it appears that the paper shredder was evaluated during the permitting process as part of the waste collection system and cyclone collector. Mr. Ribble was notified on October 11, 2013 (Attachment B) that a PTI is not required for the paper shredder.

APPLICABLE RULES/PERMIT CONDITIONS

Wayne County Installation Permit C-8005

Permit C-8005 applies to a waste paper collection system with a cyclone collector. For brevity the special conditions (SC) are outlined below.

SC 16. There shall be no visible emissions from the cyclone collector. **IN COMPLIANCE.** During the inspection the cyclone was operating under normal manufacturing conditions. There were no visible emissions from the cyclone collector.

SC 17. The particulate emissions from the cyclone collector shall not exceed 0.05 pounds per 1,000 pounds of exhaust gas, 4.06 pounds per hour, or 4.22 tons per year. **IN COMPLIANCE.** Permit design calculations assumed that particulate emissions from the cyclone collector will be 0.05 pounds per 1,000 pounds exhaust gas. The pounds per hour and tons per year were calculated based on the 0.5 pounds per 1,000 pounds exhaust gas, and an assumed density of air (0.076 pound per cubic foot).

SC 18. The waste collection system shall not be operated unless the cyclone collector is installed and operating properly. **IN COMPLIANCE.** During the inspection the collection system and cyclone appeared to be operating properly.

SC 19. The exhaust gases from the cyclone collector shall be discharged unobstructed vertically upward to the ambient air from an exit point not less than 54 feet above ground level. **IN COMPLIANCE.**

Michigan Rules

R 336.1301 - Standards for density of emissions. **IN COMPLIANCE.** "Shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: (a) A 6-minute average of 20% opacity, except for 1 6-minute average per hour of not more than 27% opacity." During the inspection opacity was not observed.

R 336.1331- Emission of particulate matter. **IN COMPLIANCE.** "It is unlawful for a person to cause or allow the emission of particulate matter from any process or process equipment in excess of 0.10 pounds particulate per 1,000 gas" (Table 31 in Rule). Permit design calculations assumed that particulate emissions from the cyclone collector will be 0.05 pounds per 1,000 pounds exhaust gas. The cyclone and waste paper collection system appeared to be operating correctly, therefore is in compliance with Rule 331 (based on permit design calculations).

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

The southern parking lot used for parking semi-truck trailers is surfaced with crushed asphalt (considered semi-paved) and is used on a less than 10 vehicle per day basis. The remaining parking lots are paved.

Per the NREPA, Act 451, Part 55, Sec. 5524, MBC is considered a fugitive dust source as defined under 324.5524 (1), and required to submit a fugitive dust operating program (324.5524(4)). At this time Michigan Box company has not submitted a fugitive dust plan. Because fugitive dust from the southern parking lot has not been an issue at the facility (no complaints or opacity issues as result of fugitive dust) AQD is currently not pursuing a fugitive dust plan from MBC.

MAERS REPORT REVIEW:

Not applicable. The facility is not required to submit Michigan Air Emissions Reporting System (MAERS).

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with Wayne County Installation Permit C-8005, and federal and state air quality rules and regulations.

NAME



DATE

11/14/13

SUPERVISOR

