

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

N049626820

FACILITY: Quad/Graphics		SRN / ID: N0496
LOCATION: 1700 JAMES SAVAGE RD, MIDLAND		DISTRICT: Saginaw Bay
CITY: MIDLAND		COUNTY: MIDLAND
CONTACT: Dana DeMello , Distribution/Engineering		ACTIVITY DATE: 09/05/2014
STAFF: Benjamin Witkopp	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Site Inspection PTI 169-99C		
RESOLVED COMPLAINTS:		

Ben Witkopp of the Michigan Department of Environmental Quality - Air Quality Division (MDEQ-AQD) met with Mr. Dana DeMello for the facility inspection. The site has air use permit 169-99C which was issued August 1, 2012. The facility has been Quad Graphics since 2010 when they were bought out. The company's previous names were Worldcolor, Quebecor, and Pendell Printing.

The facility is engaged in printing and has a regenerative thermal oxidizer (RTO) to control emissions. Cyclone/baghouse controls are in place for handling particulate resulting from waste trimming and binding. The basic operations of the facility consist of 5 heat set web fed offset lithographic presses which exhaust to the RTO. One sheet fed offset litho press and one roll fed litho press produce only in-plant emissions. Digital press operations are also used at the facility but have no emissions. The facility does not have any emergency generators on site.

VOC limits of 10.2 pounds per hour and 44.7 tons per year are set in special conditions I.1 and 2 respectively for FGOFFsetlitho. Record keeping is specified in special conditions VI 1 - 4. They concern 12 month rolling time period emissions in units of tons, MSDS's, and RTO temperature. During a previous inspection the VOC emission / calculation records were not being kept. Records are not required for pound per hour emissions since destruction efficiency of the RTO has been proven to be 99+%. Verification testing of emission rates can be requested by the AQD District Supervisor. Hazardous air pollutant (HAP) limits are established in conditions FG Facility I.1 and 2 to limit the sources potential to emit. Individual HAPs have a limit of 8.9 tpy while aggregate HAPs have a limit of 22.0 tpy. The conditions have compliance with the conditions to be verified through record keeping requirements found in condition VI 1 - 2. A previous inspection revealed a lack of such records.

Records were reviewed. During this inspection the company did have records available for both VOC and HAPs. The 12 month rolling time for 2012 had 29.79 tons which is well below the limit of 44.7. HAPs records showed total HAPs to be only 1.52 tons which obviously complies with the limits for both single and aggregate HAPs. The highest single HAP was xylene at 0.65 tons. However, the records provided at that time were from calendar year 2012.

An on-site re-use program for inks has significantly lowered the amount of waste to be handled and sent off-site. Press cleaning solvent MSDS's were checked and were found to be below the 10 mmHg vapor pressure required in IV 5 of FG Offsetlitho. As an example, RB-8020WM produced by Siebert Inc. had a vapor pressure of 3 mmHg.

FG OffsetLitho Condition IV 1 requires air flow in each dryer to be less than press room air pressure to ensure air flows into the dryer. Each dryer is equipped with multiple sensors to monitor air pressure. If the pressure difference is not maintained, the line is automatically shut down. The airflow direction was tested and confirmed during the last RTO testing.

A malfunction abatement plan (MAP) is also required. Basically the company contracts with a vendor to check and maintain the RTO each year. A list of the findings and actions taken was readily available.

The RTO is located on the south side of the facility and it treats the exhaust from the presses. The temperature is monitored, displayed electronically, and recorded on a strip chart. An electronic visual display also shows the temperature within the pre heat, discharge, and exhaust areas as well as within the combustion area. Dana said they have interlocked the RTO with all presses. If there is a problem with the unit, or if it goes down due to a power supply issue, then the facility automatically shuts down. Therefore, it is of utmost importance to keep the RTO properly functioning. The electronically displayed strip chart temperature was typically between 1601 and 1609 degrees F. at the time and

updating frequently. During records review of 2014 to date, the temperature was typically well over 1600 degrees F. The only times when the temperatures fell below 1600 was during weekend shut down time.

The waste trimming and binding is conducted in a separate area of the facility. This is done to keep any potential dust or debris from causing quality problems in the rest of the facility. The operation is routed to two cyclones and baghouses. The air is returned to the facility. The acceptable pressure drop range is 4.1 to -1.5 according to the manufacturer. Similar to the RTO, if the pressure range is not being met, the operation is tripped off. The area was not being operated at the time but was generally well kept.

After the inspection, additional records were requested for 2014 year to date to show the VOC and HAPs records for a 12 month rolling time period were actually being kept as opposed to a straight calendar year basis. The records were received September 24, 2014 and were spot checked. The values checked were fine. The only problem found was with the combined HAPs values for emissions each month. The headings should have had units of pounds rather than tons. The 12 month rolling figures checked were correct and the units there were correctly presented in tons. The facility was notified via e-mail about the situation.

Based upon the operations viewed and records checked, the facility is considered to be in compliance.

NAME B. Rathapp

DATE 9-25-14

SUPERVISOR C. Gave