

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

A266027829

FACILITY: DISPLAY PACK INC		SRN / ID: A2660
LOCATION: 1340 MONROE NW, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Mark Cone, Maintenance Facilities Manager		ACTIVITY DATE: 10/31/2014
STAFF: Denise Plafcan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Compliance inspection		
RESOLVED COMPLAINTS:		

Denise Plafcan (DP) AQD conducted an unannounced scheduled inspection of Display Pack to determine compliance with State and Federal air quality rules and regulations and Permit to Install (PTI) No. No. 314-08. DP conducted an odor and particulate survey of the area before and after the inspection, there were no odors, fugitive emissions or evidence of malfunctions. Prior to the inspection, DP met briefly with Nathan Briggs and Mark Cone and provided each of them with an Environmental Inspection Brochure. DP then reviewed the basics of what to expect during the inspection and what records would be reviewed. Nathan had a prior commitment so Mark was the escort on the inspection. Nathan is responsible for the records and DP agreed to send an e-mail with specific MSDS and records that would be necessary to complete the inspection.

Display Pack has 200 manufacturing employees on three shifts per day 6 days per week and essentially two types of products. One is for the automotive industry and the other is for the packaging industry. The automotive line is a thermoform trim line. The packaging operations consist of packages ranging from blister packs to die cut paper containers that are printed with product information.

Two printing presses under PTI 314-08 are the Royal Zenith (RZ) and the Komori 44". However, the RZ has been removed and replaced with a 40" Komori. The 40" Komori was installed in June of 2013 under a Rule 290 exemption. The first station of the 44 Komori has the ability to coat the back of the paper, this station is also capable of using UV inks. UV inks are high in solids and low in VOCs and are set with a UV bulb. The next six stations coat the front side of the paper with the various ink colors. There are also two coating towers which contain infrared heaters. The new 40 Komori also has six color decks but does not have the ability to do two sided printing. The air from both units is then emitted to the outside through an 18X18 duct opening attached to the machine. Rule 290 records are being maintained, January 2014 was the highest month at 50.4 pounds well below the 1000.0 pounds per month limit (see attached records). Alcohol concentration and temperatures are being recorded for both the 40 and 44 inch (see attached records).

Additional equipment at the facility includes adhesives, parts washers and air make-up units. Adhesive portion of the packaging operation is not externally vented and either uses hot melt or PVA glue. Two parts washers which are exempt under Rule 281(h), did have instructions posted (see electronic MSDS) Two heat exhaust air make-up units are used to remove the heat in the thermoform room.

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE EULITHO Operation of two non-heatset sheet-fed lithographic printing presses, including use of ink, fountain solution, paper coating, and blanket and roller wash clean-up solvent.

The following conditions apply to: EULITHO and the Operation of two lithographic printing presses, including use of ink, fountain solution, and paper coating.

EMISSION LIMITS EULITHO. VOC 25.0* tpy 12-month rolling time period as determined at the end of each calendar month. The highest 12 month rolling total for this calendar year so far was January 2014 at 7.2 tons. Each month has decreased in VOC emissions. These emissions are for the Komori 44". (See attached records).

II. MATERIAL LIMITS

The VOC content of the fountain solution used in EULITHO shall not exceed 8.5% by weight and the fountain solution shall be refrigerated to 60°F. Nate sent the following formula which is different than the formula that was submitted with the PTI application in 2008. According to the attached e-mail they no longer add isopropanol to the formula and use very little overall. The normal printing fountain solution mixture VOC content is 3.5 pounds/gallon at a concentration of 5.0 ounces per gallon of water calculates out to be 0.12 pounds per gallon or 0.14% by weight and records show the temp is being maintained below 60°F (see attached records).

The VOC content of any ink or coating applied in EULITHO shall not exceed 2.9 pounds per gallon, minus water, as applied. Based on MSD Sheets (see attached) they are using 0.56 pounds VOC per gallon for coating and 2.94 % VOC or 0.25 pounds VOC per gallon for the black ink.

III. PROCESS/OPERATIONAL RESTRICTIONS

The permittee shall recover and reclaim, recycle, or dispose of all inks, fountain solutions, blanket/roller wash (materials), and solvent-containing cleaning towels in an acceptable manner in compliance with all applicable state rules and federal regulations. All materials are being handled appropriately and being reclaimed or recycled when possible.

The permittee shall handle all VOC and/or HAP containing materials, including inks, coatings, and cleaning solvents, and solvent-containing cleaning towels in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. VOC or HAP containing materials are being handled appropriately and are stored in closed containers.

The permittee shall only use press-related cleaning solvents (blanket and roller washes) that either have composite partial vapor pressures that do not exceed 10 mmHg@20°C (68°F) or contain no greater than 30% VOC by weight. VOC composite partial vapor pressures content of the fountain solution is less than 3 mmHg@20°C (68°F) and the VOC content is calculated at 95% VOC by weight, which is sufficient to demonstrate compliance.

IV. DESIGN/EQUIPMENT PARAMETERS

The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the fountain solution temperature. The fountain solution temperature is monitored electronically and also a manual temperature reading is taken and recorded, the date and time of the reading is also recorded. (see attached records)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

The VOC content of any material, as received and as applied, shall be determined using federal Reference Test Method 24 (inks, coatings, fountain solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry) pursuant to Rule 1040(5). Company requested, in writing, a different method for calculating the VOC content of the fountain solutions since they use a three part fountain solution. Request was approved on July 17, 2009.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. Records are being maintained and were submitted electronically, see attached cd.

The permittee shall calculate the VOC content of the fountain solution using the method detailed in Appendix A or an alternate method approved by the AQD District Supervisor. Company requested, in writing, a different method for calculating the VOC content of the fountain solutions since they only use a three part fountain solution. Request was approved on July 17, 2009.

The permittee shall keep all applicable records to demonstrate compliance with Special Condition No. III.3 in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. All records were well organized and submitted electronically.

The permittee shall monitor and record, in a satisfactory manner, the fountain solution temperature on a once per shift basis. Temperature is frequently checked on the automatic thermometer and manually taken and recorded once per shift (see attached records).

The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing material, including the weight percent of each component. The data may consist of Material Safety

Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. Data sheet and required information were available and submitted electronically.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stack below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted: SV-LITHO Maximum Exhaust Diameter/ Dimensions 24 inches, Minimum Height Above Ground 70 feet. The stack appears to be approximately 15 feet over the roof of the five story building. Several years ago an extension was added to the existing duct for the laser cutting room. This duct is now over the height of the roof and helps eliminate any fumes blowing back into the building.

Within 30 calendar days of issuance of this permit, the permittee shall label each emission unit according to a method acceptable to the AQD District Supervisor. Labeling has been completed.

Overall the facility was clean, orderly, with improved lighting, and records were well organized and submitted on November 14, 2014, additional information was submitted on November 20, 2014. Based on the physical inspection and the records provided the facility appears to be in compliance with State and Federal air quality rules and regulations and Permit to Install (PTI) No. No. 314-08 and Rule 290.

NAME

Devin Plafca

DATE

11-21-14

SUPERVISOR

PAB

