

Facility ID: 1483040409 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1483040409 Emissions Unit ID: R002 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
R002-50 inch, 6-station KBA Colora non-heatset web-feed Lithographic Printing Press	OAC rule 3745-31-05(A)(3) PTI 14-05681	The organic compound (OC) emissions from the application of offset printing inks shall not exceed 3.1 pounds per hour.  The OC emissions from the blanket/roller wash press cleaning process shall not exceed 15.1 pounds per hour.  The OC emissions from all press activities shall not exceed 15.98 Tons per Year (TPY).  See terms and conditions A.2.b and A.2.c. See sections B.1 through B.5. This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G). See term and condition A.2.d.
	OAC rule 3745-21-07(G)(9)(f)	

**2. Additional Terms and Conditions**

- (a) The hourly emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limitations. The maximum OC content of any ink applied in this emissions unit shall not exceed 12 percent (%) by weight, including water. The maximum OC content of any blanket/roller wash applied in press cleaning process shall not exceed 6.56 pounds OC per gallon, excluding water. This emission unit currently employs non-photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). It is therefore exempt from all emissions limitations and control requirements contained in OAC rule 3745-21-07(G).

Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, the permittee shall provide written notification to the Hamilton County Department of Environmental Services. Such notification shall include information sufficient to determine compliance with the emission limits and/or control requirements specified in OAC rule 3745-21-07(G). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour, and pounds per day. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC content limitations, material usage limitations and OC emission limitations.

**B. Operational Restrictions**

1. The maximum composite vapor pressure of any blanket/roller wash shall not exceed 10 millimeters of mercury (Hg) at 20 degrees Celsius.
2. To ensure that the evaporative OC loss from the blanket/roller hand cleanup process does not exceed more than 50% (by weight) from solvents having a vapor pressure of 10 mmHg (0.19 psia) or lower at 20 degrees Celsius (68 degrees Fahrenheit), all rags utilized in the cleanup process shall be stored in containers with tight fitting covers.

3. The use of any fountain solution containing organic compounds is prohibited.
4. The maximum ink use shall not exceed 2,260,000 pounds per year from emissions units R001 through R003, combined.
5. The maximum blanket/roller wash use shall not exceed 12,500 gallons per year, excluding water, from emissions units R001 through R003, combined.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information for emissions units R001, R002, and R003, combined:
  - a. the company identification of each ink and blanket/roller wash employed;
  - b. the OC content of each ink employed in this emissions unit in percent (%) by weight, including water;
  - c. the OC content of each blanket/roller wash employed in the press cleaning process in pounds of OC per gallon, excluding water;
  - d. the amount of each ink employed, in pounds;
  - e. the amount of each blanket/roller wash, excluding water, employed in the press cleaning process, in gallons;
  - f. the amount of waste blanket/roller wash, excluding water, recovered and sent off site for disposal, in gallons;
  - g. the average solvent content of any waste blanket/roller wash shipped off site for recovery, in percent (%) by volume, excluding water;
  - h. a record of each liquid organic material employed in this emissions unit indicating whether or not the liquid organic material is photochemically reactive as defined in OAC rule 3745-21-01(C)(5);
  - i. a record of the composite vapor pressure of any blanket/roller wash, in millimeters of mercury (Hg) at 20 degrees Celsius; and
  - j. a record of the use of any fountain solution containing organic compounds.
2. The permittee shall maintain annual records of the amount of ink, in pounds, and cleanup materials, in gallons, excluding water, employed in emissions units R001 - R003 by summarizing the ink usage records and cleanup material usage records at the end of each calendar year.
3. The permittee shall maintain annual records of the total OC emissions, in tons (summation of the emissions from ink and cleanup use, less recovered amounts, at the end of each calendar year divided by 2000 pounds per ton.)
4. The permit to install for emissions units R001 - R003 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: dipropylene glycol monomethyl ether  
TLV (ug/m3): 606,100

Maximum Hourly Emission Rate (lbs/hr): 45, from emissions units R001 - R003, combined

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2203

MAGLC (ug/m3): 14,431

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

**D. Reporting Requirements**

1. The permittee shall submit an annual report to the Hamilton County Department of Environmental Services which identifies each day during which any photochemically reactive material and/or any fountain solution containing organic compounds are employed in this emissions unit. This report shall identify the cause for the use of the photochemically reactive material(s) and/or fountain solution containing organic compounds and the estimated

total quantity of material(s) emitted during each such day, in pounds. If no photochemically reactive materials nor any fountain solution containing organic compounds were employed, the permittee shall state so in the report. This report shall be submitted by February 15th each year.

2. The permittee shall also submit annual reports to the Hamilton County Department of Environmental Services which specify the following usage amounts for emissions units R001 through R003: the total amount of printing ink, in pounds; the total amount of blanket/roller wash, in gallons less water; and the amount of blanket/roller wash recovered. The annual report shall also include the calculated OC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by February 15th of each year.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing exceedances of the maximum ink OC content outlined in term and condition A.2.b. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing exceedances of the maximum blanket/roller wash OC content outlined in term and condition A.2.c. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing exceedances of the maximum blanket/roller wash composite vapor pressure limitation outlined in section B.1. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in Section A of these terms and conditions shall be determined in accordance with the following methods:

**Emission Limitations:**

The organic compound (OC) emissions from the application of offset printing inks shall not exceed 3.1 pounds per hour.

The OC emissions from the blanket/roller wash press cleaning process shall not exceed 15.1 pounds per hour.

**Applicable Compliance Methods:**

If required, compliance with the pounds per hour OC emission limitations shall be demonstrated by material balance equations using the emission factors (EF) outlined in OEPA Engineering Guide (E.G.) #68 for offset ink printing and blanket/roller wash press cleaning:

i. actual offset inks usage (lbs/hr) x offset inks OC contents (lbs of OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb of OC emitted/lb OC) = lb of OC emissions per hour from offset ink printing; the OC emissions limit was derived based on the following equation:

$524 \text{ lbs of offset inks/hr} \times 0.12 \text{ lb of OC/lb offset inks} \times 0.05 \text{ lb of OC emitted/lb of OC} = 3.1 \text{ pounds per hour of OC emissions; and}$

ii. actual blanket/roller wash usage, excluding water (gal/hr) x blanket/roller wash OC content, excluding water (lbs of OC/gal of blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb of OC emitted/lb of OC) = lb of OC emissions per hour from press cleaning; the OC emission limit was derived based on the following equation:

$4.6 \text{ gallons of blanket wash/hr} \times 6.56 \text{ lbs of OC/gallon of blanket wash} \times 0.50 \text{ lb of OC emitted/lb of OC} = 15.1 \text{ pounds per hour of OC emissions.}$

**Emission Limitation**

The OC emissions from all press activities shall not exceed 15.98 Tons per Year (TPY).

**Applicable Compliance Method:**

Compliance with the annual OC emission limitation shall be demonstrated by material balance calculations and the methods outlined in OEPA E.G. #68 for calculating OC emissions from printing presses using information from the combined records for emissions units R001 - R003:

i. actual combined offset inks usage (lbs/yr) x offset inks OC contents (lbs of OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb of OC emitted/lb of OC) x emissions unit R002 Press Allocation Factor from air PTI application number 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY of OC emissions per hour from offset ink printing; and

ii. actual combined blanket/roller wash usage, excluding water (gal/yr) x blanket/roller wash OC content, excluding water (lbs of OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb of OC emitted/lb of OC) x emissions unit R002 Press Allocation Factor from air PTI application number 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY of OC emissions from press cleaning;

blanket/roller wash usage may be adjusted and an emissions credit applied for reclaimed spent blanket/roller wash:

actual combined spent blanket/roller wash recovered, excluding water (gal/yr) x blanket/roller wash OC content, excluding water (lbs of OC/gal blanket/roller wash) x emissions unit R002 Press Allocation Factor from air PTI application number 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions credit for reclaimed spent blanket/roller wash.

The OC emission limitation was derived based on the following equation:

$11,323.67 \text{ lbs of OC emissions/yr} \times 8760 \text{ hrs/yr} / 3103 \text{ hrs/yr} \times 1 \text{ Ton/2000 lbs} = 15.98 \text{ TPY of OC}$

2. Formulation data or USEPA method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the OC contents of the inks and cleanup materials.
3. Compliance with the requirements of term and condition A.2.d and sections B.1, B.3, B.4, and B.5 shall be

demonstrated by the recordkeeping required in section C.1.

F. **Miscellaneous Requirements**

1. None