



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
WARREN COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 14-05681

Fac ID: 1483040409

DATE: 7/21/2005

Dayton Daily News Print Tech Center
Joseph McKinnon
5000 Commerce Center Dr.
Franklin, OH 450050000

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

HCDES



**Permit To Install
Terms and Conditions**

**Issue Date: 7/21/2005
Effective Date: 7/21/2005**

FINAL PERMIT TO INSTALL 14-05681

Application Number: 14-05681
Facility ID: 1483040409
Permit Fee: **\$1200**
Name of Facility: Dayton Daily News Print Tech Center
Person to Contact: Joseph McKinnon
Address: 5000 Commerce Center Dr.
Franklin, OH 450050000

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5000 Commerce Center Drive
Franklin, Ohio**

Description of proposed emissions unit(s):
Chapter 31 Modification to EUs R001, R002 and R003 for addition of print stations and an increase in production; new PTI for an increase in the PTE of a printing press which was previously PTI exempt.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

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the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant
 OC

Tons Per Year
 65.31

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 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>
R001 - 54inch, 8-station KBA Colora non-heatset web-feed Lithographic Printing Press	OAC rule 3745-31-05(A)(3)	The organic compound (OC) emissions from the application of offset printing inks shall not exceed 4.2 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 this emissions unit shall not exceed 23.01 Tons Per Year (TPY).
	OAC rule 3745-21-07(G)(9)(f)	See terms and conditions A.2.b, A2.c. and 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.

2. Additional Terms and Conditions

- 2.a The hourly emissions limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.

- 2.b** The maximum OC content of any ink applied in this emissions unit shall not exceed 12 percent (%) by weight, including water.
- 2.c** 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.
- 2.d** 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.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC content limitations, material usage limitations and OC emissions 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 Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions unit 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 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.

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PTI Application: 11-05691

Issue:

Facility ID: 148304040

Emissions Unit ID: R001

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

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under

Emissions Unit ID: R001

OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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.

Dayco**PTI A****Issued: 7/21/2005**Emissions Unit ID: **R001**

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 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 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 term and condition 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 emissions limitations in Section A. of these terms and conditions shall be determined in accordance with the following methods:

Emissions Limitations

The organic compound (OC) emissions from the application of offset printing inks shall not exceed 4.2 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 emissions 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:

- a. $\text{actual offset inks usage (lbs/hr)} \times \text{offset inks OC contents (lbs OC/lb offset inks)} \times \text{OEPA E.G. \#68 EF (0.05 lb OC emitted/lb OC)} = \text{lb OC emissions per hour}$

from offset ink printing; and

- b. actual blanket/roller wash usage, excluding water (gal/hr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) = lb OC emissions per hour from press cleaning.

Emissions Limitation

The OC emissions from all press activities shall not exceed 23.01 Tons per Year (TPY)

Applicable Compliance Method

Compliance with the annual OC emissions 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:

- a. actual combined offset inks usage (lbs/yr) x offset inks OC contents (lbs OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb OC emitted/lb OC) x R001 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions per hour from offset ink printing; and
- b. actual combined blanket/roller wash usage, excluding water (gal/yr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) x R001 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY 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 OC/gal blanket/roller wash) x R001 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions credit for reclaimed spent blanket/roller wash.

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.

Dayco

PTI A

Issued: 7/21/2005

Emissions Unit ID: **R001**

3. Compliance with the requirements of terms and conditions A.2.d., B.1., B.3., B.4., and B.5. shall be demonstrated by the recordkeeping required in term and condition C.1.

F. Miscellaneous Requirements

The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emissions unit contained in permit to install 14-04631 as issued on October 21, 1998.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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)	<p>The organic compound (OC) emissions from the application of offset printing inks shall not exceed 3.1 pounds per hour.</p> <p>The OC emissions from the blanket/roller wash press cleaning process shall not exceed 15.1 pounds per hour.</p> <p>The OC emissions from all press activities shall not exceed 15.98 Tons per Year (TPY).</p> <p>See terms and conditions A.2.b, A2.c. and B.1 through B.5.</p>
	OAC rule 3745-21-07(G)(9)(f)	This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G). See term and condition A.2.d.

2. Additional Terms and Conditions

- 2.a The hourly emissions limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to

demonstrate compliance with these limits.

- 2.b** The maximum OC content of any ink applied in this emissions unit shall not exceed 12 percent (%) by weight, including water.
- 2.c** 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.
- 2.d** 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.

- 2.e** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC content limitations, material usage limitations and OC emissions 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 Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions unit 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 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.

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PTI Application: 11-05691
Issue

Facility ID: 148304040

Emissions Unit ID: R002

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

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant

not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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.

Emissions Unit ID: **R002**

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 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 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 term and condition 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 emissions limitations in Section A. of these terms and conditions shall be determined in accordance with the following methods:

Emissions 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 emissions 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:

- a. $\text{actual offset inks usage (lbs/hr)} \times \text{offset inks OC contents (lbs OC/lb offset inks)} \times \text{OEPA E.G. \#68 EF (0.05 lb OC emitted/lb OC)} = \text{lb OC emissions per hour from offset ink printing; and}$

- b. actual blanket/roller wash usage, excluding water (gal/hr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) = lb OC emissions per hour from press cleaning.

Emissions 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 emissions 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:

- a. actual combined offset inks usage (lbs/yr) x offset inks OC contents (lbs OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb OC emitted/lb OC) x R002 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions per hour from offset ink printing; and
- b. actual combined blanket/roller wash usage, excluding water (gal/yr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) x R002 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY 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 OC/gal blanket/roller wash) x R002 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions credit for reclaimed spent blanket/roller wash.

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.

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Emissions Unit ID: R002

3. Compliance with the requirements of terms and conditions A.2.d., B.1., B.3., B.4., and B.5. shall be demonstrated by the recordkeeping required in term and condition C.1.

F. Miscellaneous Requirements

The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emissions unit contained in permit to install 14-04631 as issued on October 21, 1998.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
R003 - 50 inch, 8-station KBA Colora non-heatset web-feed Lithographic Printing Press	OAC rule 3745-31-05(A)(3)	<p>The organic compound (OC) emissions from the application of offset printing inks shall not exceed 4.2 pounds per hour.</p> <p>The OC emissions from the blanket/roller wash press cleaning process shall not exceed 15.1 pounds per hour.</p> <p>The OC emissions from all press activities shall not exceed 21.31 Tons per Year (TPY).</p> <p>See terms and conditions A.2.b, A2.c. and B.1 through B.5.</p>
	OAC rule 3745-21-07(G)(9)(f)	This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G). See term and condition A.2.d.

2. Additional Terms and Conditions

- 2.a The hourly emissions limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly records are required to

demonstrate compliance with these limits.

- 2.b The maximum OC content of any ink applied in this emissions unit shall not exceed 12 percent (%) by weight, including water.
- 2.c 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.
- 2.d 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.

- 2.e Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC content limitations, material usage limitations and OC emissions 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 Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for emissions unit 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 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

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under

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Issue

Facility ID: 148304040

Emissions Unit ID: R003

OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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 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.

Dayco**PTI A****Issued: 7/21/2005**Emissions Unit ID: **R003**

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 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 term and condition 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 emissions limitations in Section A. of these terms and conditions shall be determined in accordance with the following methods:

Emissions Limitations

The organic compound (OC) emissions from the application of offset printing inks shall not exceed 4.2 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 emissions 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:

- a. actual offset inks usage (lbs/hr) x offset inks OC contents (lbs OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb OC emitted/lb OC) = lb OC emissions per hour from offset ink printing; and
- b. actual blanket/roller wash usage, excluding water (gal/hr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) = lb OC emissions per hour from press cleaning.

Emissions Limitation

The OC emissions from all press activities shall not exceed 21.31 Tons per Year (TPY)

Applicable Compliance Method

Compliance with the annual OC emissions 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:

- a. actual combined offset inks usage (lbs/yr) x offset inks OC contents (lbs OC/lb offset inks) x OEPA E.G. #68 EF (0.05 lb OC emitted/lb OC) x R003 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions per hour from offset ink printing; and
- b. actual combined blanket/roller wash usage, excluding water (gal/yr) x blanket/roller wash OC content, excluding water (lbs OC/gal blanket/roller wash) x OEPA E.G. #68 EF (0.50 lb OC emitted/lb OC) x R003 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY 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 OC/gal blanket/roller wash) x R003 Press Allocation Factor from PTI Application 14-05681 submitted on February 9, 2005 x Ton/2000 lbs = TPY OC emissions credit for reclaimed spent blanket/roller wash.

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 terms and conditions A.2.d., B.1., B.3., B.4., and B.5. shall be demonstrated by the recordkeeping required in term and condition C.1.

F. Miscellaneous Requirements

Dayco

PTI A

Issued: 7/21/2005

Emissions Unit ID: **R003**

The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emissions unit contained in permit to install 14-04631 as issued on October 21, 1998.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
R004 - 20.47 inch, 4-station Heidelberg Speed master SM52 heatset sheetfed Lithographic Printing Press	OAC rule 3745-31-05(A)(3)	The OC emissions from this emissions unit shall not exceed 5.01 Tons Per Year (TPY).
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).
		See terms and conditions A.2.b. through A.2.e.
	OAC rule 3745-21-07(G)(2)	The OC emissions from this emissions unit shall not exceed 8 pounds per hour on any day photochemically reactive materials (PRMs) are applied in this emissions unit.
		The OC emissions from this emissions unit shall not exceed 40 pounds per day on any day PRMs are applied in this emissions unit.
		See term and condition A.2.a.

2. Additional Terms and Conditions

- 2.a** Emissions unit R004 always employs PRMs, does not employ control equipment, and it is not reasonable for the permittee to maintain hourly records. Therefore, compliance with the hourly OC emissions limit shall be based on an average of the daily OC emissions from all press activities divided by the total number of hours the emissions unit was in operation. The total organic material emissions from the cleanup of a press with photochemically reactive materials must be added to the other emissions of organic materials from the same press being cleaned during any hour and any day in order to determine compliance.
- 2.b** The maximum OC content of any ink applied in this emissions unit shall not exceed 20 percent (%) by weight, including water.
- 2.c** The maximum OC content of any blanket/roller wash applied in press cleaning process shall not exceed 97 percent (%) by weight.
- 2.d** The maximum OC content of any fountain solution used in this emissions unit shall not exceed 0.80 pound OC per gallon, excluding water.
- 2.e** The maximum OC content of any alcohol replacement used in this emissions unit shall not exceed 7.90 pounds OC per gallon, excluding water.
- 2.f** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the OC content limitations, material usage limitations and OC emissions 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 maximum ink use shall not exceed 6,500 pounds per year from this emissions unit.
4. The maximum blanket/roller wash use shall not exceed 1,300 pounds per year from this emissions unit.

5. The maximum fountain solution use shall not exceed 200 gallons per year from this emissions unit.
6. The maximum alcohol replacement use shall not exceed 200 gallons per year from this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for emissions unit R004:
 - a. the company identification of each ink, blanket/roller wash, fountain solution and alcohol replacement material employed in this emissions unit;
 - 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 percent (%) by weight;
 - d. the OC content of each fountain solution employed in this emissions unit in pounds OC per gallon;
 - e. the OC content of each alcohol replacement employed in this emissions unit in pounds OC per gallon;
 - e. the amount of each ink employed in this emissions unit, in pounds;
 - f. the amount of each blanket/roller wash employed in the press cleaning process, in pounds;
 - g. the amount of each fountain solution employed in this emissions unit, in gallons;
 - h. the amount of each alcohol replacement employed in this emissions unit, in gallons;
 - i. the total OC emission rate from all press activities, in pounds OC emissions per day;
 - j. the total number of hours the emissions unit was in operation;
 - k. the average hourly organic compound emission rate from all press activities, i.e., i. divided by j., in pounds per hour (average); and
 - l. a record of the composite vapor pressure of any blanket/roller wash, in

millimeters of mercury (Hg) at 20 degrees Celsius.

2. The permittee shall maintain annual records of the amount of ink and cleanup material, in pounds, and fountain solutions and alcohol replacement, in gallons, employed in emissions unit R004 by summarizing the 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 all material use, at the end of each calendar year divided by 2000 pounds per ton.)
4. The permit to install for emissions unit R004 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: trimethyl benzene (mixed isomers)

TLV (ug/m3): 122,900

Maximum Hourly Emission Rate (lbs/hr): 5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 245

MAGLC (ug/m3): 2926

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
 - a. An identification of each day during which the average hourly organic compound emissions from the coatings and photochemically reactive cleanup materials exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - b. An identification of each day during which the organic compound emissions from the coatings and photochemically reactive cleanup materials exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The notification(s) 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.

2. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing exceedances of the maximum ink OC content outlined in term 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.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing exceedances of the maximum blanket/roller wash OC content outlined in term 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.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing exceedances of the maximum blanket/roller wash composite vapor pressure limitation outlined in term 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.
2. The permittee shall also submit annual reports to the Hamilton County Department of Environmental Services which specify the following usage amounts for emissions unit R004: the total amount of printing ink, in pounds; the total amount of blanket/roller wash, in pounds; and the amount of blanket/roller wash, fountain solution and alcohol replacement, in gallons. 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.

E. Testing Requirements

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

Emissions Limitations

The OC emissions shall not exceed 40 pounds per day

The OC emissions shall not exceed 8 pounds per hour based on an hourly average of emissions

Applicable Compliance Methods

Compliance with the pounds per day OC emissions limitations shall be demonstrated by a summation of the emissions from material balance equations. For OC emissions from blanket/roller wash usage, use the emission factor (EF) outlined in OEPA Engineering Guide (E.G.) #68:

- a. $\text{actual heatset inks usage (lbs/day)} \times \text{heatset inks OC contents (lbs OC/lb offset inks)} = \text{lb OC emissions per day from heatset ink printing};$
- b. $\text{actual blanket/roller wash usage, (lb/day)} \times \text{blanket/roller wash OC content, (lbs OC/lb blanket/roller wash)} \times \text{OEPA E.G. \#68 EF (0.50 lb OC emitted/lb OC)} = \text{lb OC emissions per day from press cleaning};$
- c. $\text{actual fountain solution usage (gal/day)} \times \text{fountain solution OC content (lbs OC/gal fountain solution)} = \text{lb OC emissions per day from fountain solution};$ and
- d. $\text{actual alcohol replacement usage (gal/day)} \times \text{alcohol replacement OC content (lbs OC/gal alcohol replacement)} = \text{lb OC emissions per day from alcohol replacement}.$

Compliance with the average hourly OC emissions limitation shall be demonstrated by dividing the summation of the actual daily OC emissions as calculated in E.1.a. - E.1.d. (lbs OC emissions/day) by the total number of hours the emissions unit was in operation (hrs/day) = lbs OC emissions/hour, average.

Emissions Limitation

The OC emissions from all press activities shall not exceed 5.01 Tons per Year (TPY)

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Applicable Compliance Method

Compliance with the annual OC emissions limitation shall be demonstrated by a summation of the actual daily OC emissions as calculated in E.1.a. - E.1.d. for each day in the calendar year (lbs OC emissions/year) x Ton/2000 lbs = TPY OC emissions

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 terms and conditions B.1., B.3., B.4., B.5. and B.6. shall be demonstrated by the recordkeeping required in term and condition C.1.

F. Miscellaneous Requirements

None