



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
HURON COUNTY**

**CERTIFIED MAIL**

Street Address:

50 West Town Street, Suite 700

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 03-16155**

**Fac ID: 0339030135**

**DATE: 3/29/2007**

R.R. Donnelley and Sons Company  
Christopher Hassmann  
1145 Conwell Ave  
Willard, OH 44888-0001

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

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

CC: USEPA

NWDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 3/29/2007  
Effective Date: 3/29/2007**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 03-16155

Application Number: 03-16155  
Facility ID: 0339030135  
Permit Fee: **\$200**  
Name of Facility: R.R. Donnelley and Sons Company  
Person to Contact: Christopher Hassmann  
Address: 1145 Conwell Ave  
Willard, OH 44888-0001

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1145 Conwell Ave  
Willard, Ohio**

Description of proposed emissions unit(s):

**Modification to allow for nonheatset operations.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## 3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

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**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to

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the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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**7. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

- iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

#### 10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

#### 11. 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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**12. 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.

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### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit 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 of state-only enforceable 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 state-only required 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 (i.e., postmarked) quarterly, 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. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder.

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The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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.

**5. Construction of New Sources(s)**

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.

**6. 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.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

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If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. 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**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	39.0

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
K024 heatset/non-heatset web offset lithographic printing press #328, with thermal oxidizer (Administrative modification of PTI 03-16155 (issued 11/02/04) to allow for the use of nonheatset materials)	OAC rule 3745-31-05(A)	See condition A.I.2.c and condition A.I.2.d.
	OAC rule 3745-31-05(C)	10.00 pounds organic compounds (OC) /hour, as a monthly average, for heatset operations
	OAC rule 3745-21-07(G)	39.0 tons OC/rolling 12-month period for emissions units K024 and K025 combined (see condition A.I.2.b)
	OAC rule 3745-17-11(B)	See condition A.II.4.
	OAC rule 3745-17-07(A)	See condition A.I.2.e.
		See condition A.I.2.f.

**2. Additional Terms and Conditions**

- 2.a The OC emission limitation of 10.00 pounds/hour for heatset operations (as a monthly average) for emissions unit K024 is based on the following information:
  - i. The percentage of the ink solvent retained on the web after the dryer is 20 percent\*;
  - ii. The percentage of the fountain solution solvent available for capture in the dryer is 70 percent\*;
  - iii. The percentage of the auto blanket wash (clean up) solvent available for capture in the dryer is 40 percent\*; and,

- iv. The percentage of the hand blanket wash (clean up) solvent retained on the cloths is 75 percent\*\*.

The OC emission limitation of 6.50 pounds/hour for nonheatset operations(as a monthly average) for emissions unit K024 is based on the following information:

- i. the percentage of the ink solvent retained on the web is 95 percent\*;
- ii. the percentage of the fountain solution solvent available for capture is 0 percent\*;
- iii. the percentage of the auto blanket wash (clean up) solvent available for capture is 0 percent\*; and,
- iv. the percentage of the hand blanket wash (clean up) solvent retained on the cloths is 75 percent\*\*

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

**2.b** The emissions of OCs shall not exceed 39.0 tons per year, for emissions units K024 and K025 combined, based upon a rolling, 12-month summation of the monthly emissions. The OC emission limitation is based on OC content, usage restrictions and OC control requirements for the purpose of establishing federally enforceable limitations to avoid Prevention of Significant Deterioration (PSD) applicability. For purposes of federal enforceability, OC limitations effectively restrict VOC emissions.

**2.c** The permittee shall employ best available technology (BAT) on this emissions unit. . It has been determined that BAT control requirements do not include the use of the thermal oxidizer during nonheatset operations. BAT for heatset operations has been determined to be the use of a control system for OC emissions, meeting the following requirements:

- i. The control system shall consist of a collection system for the dryer. The collection system shall achieve a capture efficiency of 100 percent of the press dryer exhaust; and,
- ii. The control system shall be equipped with a thermal oxidizer with a destruction efficiency of at least 95 percent when operating at the

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average temperature specified in condition A.II.3. of this permit.

- 2.d** The requirements of this rule also include compliance with the requirements or established under OAC rule 3745-31-05(C).
- 2.e** The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.
- 2.f** This emissions unit is not subject to the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.

## II. Operational Restrictions

1. The permittee shall comply with the following average OC content restrictions for the materials employed in this emissions unit:
  - a. Ink: 0.45 pound OC /pound of ink for heatset operations, as applied;  
1.70 pound OC / gallon of ink for nonheatset operations, as applied;
  - b. Fountain solution: 0.25 pound OC /gallon of fountain solution material, as applied; and,
  - c. Cleanup materials (auto and hand blanket wash): 7.5 pounds OC/gallon of cleanup material, as applied.
2. The maximum rolling 12-month usage rate of OC containing materials for emission units K024 and K025 is limited by the following equation:

$$E_M = \sum E_n \leq 39.0 \text{ tons}$$

where,

$E_M$  = the increment of the rolling 12-month period and the subsequent emissions calculated using the following equation:  $E_M = E_1 + E_2 + E_3 + \dots + E_n$  (summation of all increments consumed for each product); and,

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**Emissions Unit ID: K024**

$E_n$  = the increment of the OC containing material used for each product during the period and the subsequent emissions calculated using the following equation:  $E_n = [U_n \times V_n \times (1 - R_n/100) \times \{1 - (C_n/100) \times (K/100)\}]$

And where all other variables are the same as described in paragraph A.III.1.e. below.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the usage restrictions in the following table:

Month	$\sum E_n$ is less than or equal to
1	8.0 tons
1-2	16.0 tons
1-3	24.0 tons
1-4	32.0 tons
1-12	39.0 tons

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual usage restriction shall be based upon a rolling, 12-month summation.

\*See A.VI.1

3. The average temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation in heatset mode, shall not be less than 1,400 degrees Fahrenheit. A lower average temperature requirement may be established if compliance with the minimum destruction efficiency in A.I.2.c is demonstrated during emissions testing.
4. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01, in this emissions unit is prohibited.

### III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records which list the following information for each graphic arts material (ink, fountain solution, cleanup material, and blanket wash) employed in emissions unit K024:
  - a. The name and identification number of each graphic arts material employed;
  - b. Documentation on whether or not each material employed is a photochemically reactive material;
  - c. The OC content of each graphic arts material, in pounds/gallon or pounds/pound for inks, as received;

- d. The quantity of each graphic arts material employed, in gallons or pounds of each material per month;
- e. The OC emissions for each graphic arts material employed, in pounds or tons/month, calculated as follows:

$$E_n = [U_n \times V_n \times (1 - R_n/100) \times \{1 - (C_n/100) \times (K/100)\}]$$

where:

- $E_n$  = OC emissions from an individual material (pounds of OC emitted/month);  
 $U_n$  = total usage of the individual material - typically ink, fountain solution, and cleaning solvents (lbs or gallons of material/month);  
 $V_n$  = average OC content of material as determined by Method 24 (lb OC/lb or gallon of material);  
 $R_n$  = percent of OC retained on the web or on cloths:

- $R_n = 20$  for heatset inks  
 $R_n = 95$  for non-heatset inks  
 $R_n = 0$  for fountain solutions  
 $R_n = 0$  for auto blanket wash (cleanup) solvent  
 $R_n = 75$  for hand blanket wash (cleanup) solvent

$C_n$  = capture efficiency for individual material emitted:

- $C_n = 100$  for heatset inks  
 $C_n = 70$  for heatset fountain solutions  
 $C_n = 40$  for heatset auto blanket wash (cleanup) solvent  
 $C_n = 0$  for hand blanket wash (cleanup) solvent; and all non-heatset operations

$K$  = destruction efficiency as determined during the performance test as specified in condition A.V.2. ( $K = 0$  for all non-heatset operations)

- f. The total OC emission rate of all graphic arts materials employed, in pounds or tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + \dots + E_n$$

where:

$E_M$  = Monthly OC emissions, in pounds/month; and,  
 $E_1$  through  $E_n$  = OC emissions from each individual graphic arts material (condition A.III.1.e).

- g. The number of hours this emissions unit was in operation, when graphic arts materials were being applied or employed (hours/month);
- h. The average hourly OC emission rate, i.e., "f" divided by "g", above;

\* To be recorded and calculated for heatset and non-heatset operations respectively.

2. In addition to the above information, the permittee shall maintain monthly records of the following in order to demonstrate compliance with the initial monthly OC emission rate, and the rolling, 12-month OC emission rate for emissions unit K024 and K025 combined:

- a. During the first 12 calendar months of operation under this permit, the cumulative year-to-date OC emissions; and
- b. Beginning the first month after the first 12 calendar months of operation, the rolling, 12-month OC emission rate, calculated as follows:

$$E_T = (E_{M1} + E_{M2} + E_{M3} + \dots + E_{M12}) / 2000 \text{ lbs}$$

where:

$E_T$  =Rolling 12-month OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;  
 $E_M$  =Monthly OC emissions (pounds/month).

\*See A.VI.1

3. The permittee shall maintain monthly records of the following information in order to demonstrate compliance with the monthly average OC content of ink, fountain solution, cleanup material, and blanket wash, as employed in emissions unit K024:
  - a. The OC content of each ink, fountain solution, cleanup material, and blanket wash employed during the month (pound{s} OC/pound ink or gallon of each material);
  - b. The total gallons or pounds of each individual ink, fountain solution, cleanup material, and blanket wash employed during the month;

- c. The total OC usage, in pounds of OC/month, from each individual ink, fountain solution, cleanup material, and blanket wash employed, i.e., the product of the OC content "a" times the usage "b" (above) for each material employed during the month;
- d. The sum of the monthly OC usage for all inks, fountain solutions, cleanup materials, and blanket wash materials (separately) employed, i.e., the sum of "c" (above) for all inks, fountain solutions, cleanup, and blanket wash materials (e.g.: lbs OC from all inks/month);
- e. The total gallons or pounds of inks, fountain solutions, cleanup materials, and blanket wash materials (separately) employed during the month (e.g: lbs ink/month);

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- f. The monthly average OC per gallon or pound of ink, fountain solution, cleanup material, and blanket wash, i.e., "d" divided by "e" (above) for each type of material (e.g.: lb OC/lb ink).
4. The permittee shall operate and maintain continuous temperature monitors\* and a temperature recorder which measures and records the average temperature within the thermal oxidizer when the emissions unit is in operation in heatset mode. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

\* This temperature monitoring system consists of several temperature monitors from which an average temperature is obtained.

The permittee shall collect and record the following information each day for this emissions unit:

- a. All 3-hour blocks of time during which the average temperature within the thermal oxidizer, when the emissions unit was in operation in heatset mode, was less than the temperature limitation specified in condition A.II.3 of this permit; and,
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation in heatset mode.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports which identify exceedances of any of the following:
  - a. The emission limitation of 10.00 pounds OC/hour for heatset operations and 6.50 pounds OC/hour for non-heatset operations , as determined in condition A.III.1;
  - b. The monthly average OC content restrictions for inks, fountain solutions, blanket wash, and cleanup materials, as determined in condition A.III.3; and
  - c. For the first 12 months following the issuance of this permit, the cumulative emission limitations specified in the table found in condition A.II.2; and

- d. Following the first 12 months of this permit, the emission limitation of 39.0 tons OC/rolling, 12-month period.

\*See A.VI.1

2. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average temperature within the thermal oxidizer does not comply with the temperature limitation specified in condition A.II.3. of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that include a log of the downtime for the capture (collection) system and/or the thermal oxidizer when the emissions unit was in operation in heatset mode.
4. The permittee shall submit quarterly deviation (excursion) reports which identify each day during which a photochemically reactive material was employed.
5. All quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

## **V. Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in condition A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
10.00 pounds OC/hour (as a monthly average), for heatset operations  
6.50 pounds OC/hour (as a monthly average), for non-heatset operations  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with these emission limitations through the record keeping required in condition A.III.1 of this permit.
  - b. Emission Limitation:  
39.0 tons OC/rolling 12-month period  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with this emission limitation through the record keeping required in condition A.III.2. of this permit.
2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 180 days after the startup of this

emissions unit.

- b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency (see A.V.2.c.i) and destruction efficiency (see A.V.2.c.ii) for OC.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. In accordance with Ohio EPA's Engineering Guide #56, the capture efficiency may be assumed to be 100 percent for organic compounds not retained in the substrate or emitted uncontrolled, provided that the press dryer maintains a negative pressure within the press dryer and the dryer exhausts to a control device (the thermal oxidizer). Therefore, during testing of the thermal oxidizer, the permittee shall verify that a negative pressure is maintained within the press dryer.
    - ii. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the thermal oxidizer. The test method selected shall be based on a consideration of the diversity of organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
  - d. As part of the performance test, the permittee shall collect and record the average temperature within the thermal oxidizer, in degrees Fahrenheit, and include this information with the results of the emissions report specified below.
3. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northwest District Office's refusal to accept the results of the emission test(s).

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**Modif**

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Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northwest District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northwest District Office.

**R.R. I**

**PTI A**

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Emissions Unit ID: **K024**

**VI. Miscellaneous Requirements**

1. This Permit to Install was originally issued on 1/2/04. As such all operational restrictions, monitoring/recordkeeping, and reporting requirements which reference "the first 12 months following the issuance of this permit" have expired and are no longer applicable. The permittee shall use the existing monthly records to demonstrate compliance with the rolling 12 month restriction immediately upon issuance of this permit.

R.R. I  
PTI A

Emissions Unit ID: **K024**

Modification Issued: 3/29/2007

**B. State Only Enforceable Section**

**I. 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>
K024 - heatset/non-heatset web offset lithographic printing press #328, with thermal oxidizer (Administrative modification of PTI 03-16155 (issued 11/02/04)to allow for the use of nonheatset materials)		See section B.III

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record keeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the actual materials (inks, fountain solutions, blanket wash, 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

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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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: ethylene glycol

TLV (mg/m<sup>3</sup>): 127

Maximum Hourly Emission Rate (lbs/hr): 2.34\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 3.64

MAGLC (ug/m<sup>3</sup>): 3,024

\* assume that all of the emissions are ethylene glycol

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying 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

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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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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,

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- c. Where 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.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
K025 - heatset web offset lithographic printing press #329, with thermal oxidizer (Administrative modification of PTI 03-16155 (issued 11/02/04)to revised thermal oxidizer temperature)	OAC rule 3745-31-05(A)	See condition A.I.2.c and condition A.I.2.d.
	OAC rule 3745-31-05(C)	5.60 pounds organic compounds (OC) /hour, as a monthly average
	OAC rule 3745-21-07(G)	39.0 tons OC/rolling 12-month period for emissions units K024 and K025 combined (see condition A.I.2.b)
	OAC rule 3745-17-11(B)	See condition A.II.4.
	OAC rule 3745-17-07(A)	See condition A.I.2.e.
		See condition A.I.2.f.

**2. Additional Terms and Conditions**

- 2.a The OC emission limitation of 5.60 pounds/hour (as a monthly average) for emissions unit K025 is based on the following information:
  - i. The percentage of the ink solvent retained on the web after the dryer is 20 percent\*;
  - ii. The percentage of the fountain solution solvent available for capture in

the dryer is 70 percent\*;

- iii. The percentage of the auto blanket wash (clean up) solvent available for capture in the dryer is 40 percent\*; and,
- iv. The percentage of the hand blanket wash (clean up) solvent retained on the cloths is 75 percent\*\*.

\* This is based on the draft Control Techniques Guideline (Control of Volatile Organic Compound Emissions from Offset Lithographic Printing, dated September 1993) and the Alternative Control Techniques document, dated November 8, 1993.

\*\* This is based on information supplied by the permittee.

- 2.b** The emissions of OCs shall not exceed 39.0 tons per year, for emissions units K024 and K025 combined, based upon a rolling, 12-month summation of the monthly emissions. The OC emission limitation is based on OC content, usage restrictions and OC control requirements for the purpose of establishing federally enforceable limitations to avoid Prevention of Significant Deterioration (PSD) applicability. For purposes of federal enforceability, OC limitations effectively restrict VOC emissions.
- 2.c** The permittee shall employ best available technology (BAT) on this emissions unit. BAT has been determined to be the use of a control system for OC emissions, meeting the following requirements:
  - i. The control system shall consist of a collection system for the dryer. The collection system shall achieve a capture efficiency of 100 percent of the press dryer exhaust; and,
  - ii. The control system shall be equipped with a thermal oxidizer with a destruction efficiency of at least 95 percent when operating at the average temperature specified in condition A.II.3. of this permit.
- 2.d** The requirements of this rule also include compliance with the requirements or established under OAC rule 3745-31-05(C).
- 2.e** The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-

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11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Huron County, which is identified as a P-3 county.

**2.f** This emissions unit is not subject to the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.

**II. Operational Restrictions**

1. The permittee shall comply with the following average OC content restrictions for the materials employed in this emissions unit:
  - a. Ink: 0.45 pound OC /pound of ink, as applied;
  - b. Fountain solution: 0.25 pound OC /gallon of fountain solution material, as applied; and,
  - c. Cleanup materials (auto and hand blanket wash): 7.5 pounds OC/gallon of cleanup material, as applied.
2. The maximum rolling 12-month usage rate of OC containing materials for emission units K024 and K025 is limited by the following equation:

$$E_M = \sum E_n \leq 39.0 \text{ tons}$$

where,

$E_M$  = the increment of the rolling 12-month period and the subsequent emissions calculated using the following equation:  $E_M = E_1 + E_2 + E_3 + \dots + E_n$  (summation of all increments consumed for each product); and,

$E_n$  = the increment of the OC containing material used for each product during the period and the subsequent emissions calculated using the following equation:  $E_n = [U_n \times V_n \times (1 - R_n/100) \times \{1 - (C_n/100) \times (K/100)\}]$

And where all other variables are the same as described in paragraph A.III.1.e. below.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the usage restrictions in the following table:

Month	$\sum E_n$ is less than or equal to
1	8.0 tons

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1-2	16.0 tons
1-3	24.0 tons
1-4	32.0 tons
1-12	39.0 tons

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual usage restriction shall be based upon a rolling, 12-month summation.

\*See A.VI.1

3. The average temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,400 degrees Fahrenheit. A lower average temperature requirement may be established if compliance with the minimum destruction efficiency in A.I.2.c is demonstrated during emissions testing.
4. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01, in this emissions unit is prohibited.

### **III. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain monthly records which list the following information for each graphic arts material (ink, fountain solution, cleanup material, and blanket wash) employed in emissions unit K025:
  - a. The name and identification number of each graphic arts material employed;
  - b. Documentation on whether or not each material employed is a photochemically reactive material;
  - c. The OC content of each graphic arts material, in pounds/gallon or pounds/pound for inks, as received;
  - d. The quantity of each graphic arts material employed, in gallons or pounds of each material per month;
  - e. The OC emissions for each graphic arts material employed, in tons/month, calculated as follows:

$$E_n = [U_n \times V_n \times (1 - R_n/100) \times \{1 - (C_n/100) \times (K/100)\}]$$

where:

$E_n$  = OC emissions from an individual material (pounds of OC emitted/month);  
 $U_n$  = total usage of the individual material - typically ink, fountain solution, and cleaning solvents (lbs or gallons of material/month);  
 $V_n$  = average OC content of material as determined by Method 24 (lb OC/lb or gallon of material);  
 $R_n$  = percent of OC retained on the web or on cloths:

$R_n = 20$  for inks

$R_n = 0$  for fountain solutions

$R_n = 0$  for auto blanket wash (cleanup) solvent

$R_n = 75$  for hand blanket wash (cleanup) solvent

$C_n$  = capture efficiency for individual material emitted:

$C_n = 100$  for inks

$C_n = 70$  for fountain solutions

$C_n = 40$  for auto blanket wash (cleanup) solvent

$C_n = 0$  for hand blanket wash (cleanup) solvent; and

$K$  = destruction efficiency as determined during the performance test as specified in condition A.V.2.

- f. The total OC emission rate of all graphic arts materials employed, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + \dots + E_n$$

where:

$E_M$  = Monthly OC emissions, in pounds/month; and,

$E_1$  through  $E_n$  = OC emissions from each individual graphic arts material (condition A.III.1.e).

- g. The number of hours this emissions unit was in operation, when graphic arts materials were being applied or employed (hours/month);
- h. The average hourly OC emission rate, i.e., "f" divided by "g", above;

2. In addition to the above information, the permittee shall maintain monthly records of the following in order to demonstrate compliance with the initial monthly OC emission rate, and the rolling, 12-month OC emission rate for emissions unit K024 and K025 combined:

- a. During the first 12 calendar months of operation under this permit, the cumulative year-to-date OC emissions; and
- b. Beginning the first month after the first 12 calendar months of operation, the rolling, 12-month OC emission rate, calculated as follows:

$$E_T = (E_{M1} + E_{M2} + E_{M3} + \dots + E_{M12}) / 2000 \text{ lbs}$$

where:

$E_T$  =Rolling 12-month OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;

$E_M$  =Monthly OC emissions (pounds/month).

\*See A.VI.1

3. The permittee shall maintain monthly records of the following information in order to demonstrate compliance with the monthly average OC content of ink, fountain solution, cleanup material, and blanket wash, as employed in emissions unit K024:

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- a. The OC content of each ink, fountain solution, cleanup material, and blanket wash employed during the month (pound{*s*} OC/pound ink or gallon of each material);
  - b. The total gallons or pounds of each individual ink, fountain solution, cleanup material, and blanket wash employed during the month;
  - c. The total OC usage, in pounds of OC/month, from each individual ink, fountain solution, cleanup material, and blanket wash employed, i.e., the product of the OC content "a" times the usage "b" (above) for each material employed during the month;
  - d. The sum of the monthly OC usage for all inks, fountain solutions, cleanup materials, and blanket wash materials (separately) employed, i.e., the sum of "c" (above) for all inks, fountain solutions, cleanup, and blanket wash materials (e.g.: lbs OC from all inks/month);
  - e. The total gallons or pounds of inks, fountain solutions, cleanup materials, and blanket wash materials (separately) employed during the month (e.g: lbs ink/month);
  - f. The monthly average OC per gallon or pound of ink, fountain solution, cleanup material, and blanket wash, i.e., "d" divided by "e" (above) for each type of material (e.g.: lb OC/lb ink).
4. The permittee shall operate and maintain continuous temperature monitors\* and a temperature recorder which measures and records the average temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

\* This temperature monitoring system consists of several temperature monitors from which an average temperature is obtained.

The permittee shall collect and record the following information each day for this emissions unit:

- a. All 3-hour blocks of time during which the average temperature within the

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thermal oxidizer, when the emissions unit was in operation, was less than the temperature limitation specified in condition A.II.3 of this permit; and,

- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify exceedances of any of the following:
  - a. The emission limitation of 10.00 pounds OC/hour , as determined in condition A.III.1;
  - b. The monthly average OC content restrictions for inks, fountain solutions, blanket wash, and cleanup materials, as determined in condition A.III.3; and,
  - c. For the first 12 months following the issuance of this permit, the cumulative emission limitations specified in the table found in condition A.II.2; and
  - d. Following the first 12 months of this permit, the emission limitation of 39.0 tons OC/rolling, 12-month period.

\*See A.VI.1

2. The permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average temperature within the thermal oxidizer does not comply with the temperature limitation specified in condition A.II.3 of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that include a log of the downtime for the capture (collection) system and/or the thermal oxidizer when the emissions unit was in operation.
4. The permittee shall submit quarterly deviation (excursion) reports which identify each day during which a photochemically reactive material was employed.
5. All quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

#### V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitations in condition A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

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- a. Emission Limitation:  
5.60 pounds OC/hour (as a monthly average)  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with this emission limitation unit through the record keeping required in condition A.III.1 of this permit.
  - b. Emission Limitation:  
39.0 tons OC/rolling 12-month period  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with this emission limitation through the record keeping required in condition A.III.2. of this permit.
2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emissions testing shall be conducted within 180 days after the startup of this emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency (see A.V.2.c.i) and destruction efficiency (see A.V.2.c.ii) for OC.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. In accordance with Ohio EPA's Engineering Guide #56, the capture efficiency may be assumed to be 100 percent for organic compounds not retained in the substrate or emitted uncontrolled, provided that the press dryer maintains a negative pressure within the press dryer and the dryer exhausts to a control device (the thermal oxidizer). Therefore, during testing of the thermal oxidizer, the permittee shall verify that a negative pressure is maintained within the press dryer.
    - ii. The destruction efficiency shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-21-10 and shall measure the percent reduction in mass emissions of organic compounds between the inlet and outlet of the thermal oxidizer. The test method selected shall be based on a consideration of the diversity of organic

Emissions Unit ID: **K025**

species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- d. As part of the performance test, the permittee shall collect and record the average temperature within the thermal oxidizer, in degrees Fahrenheit, and include this information with the results of the emissions report specified below.
3. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northwest District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northwest District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northwest District Office.

## VI. Miscellaneous Requirements

1. This Permit to Install was originally issued on 1/2/04. As such all operational restrictions, monitoring/recordkeeping, and reporting requirements which reference "the first 12 months following the issuance of this permit" have expired and are no longer applicable. The permittee shall use the existing monthly records to demonstrate compliance with the rolling 12 month restriction immediately upon issuance of this permit.

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**B. State Only Enforceable Section**

**I. 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>
K025 - heatset web offset lithographic printing press #329, with thermal oxidizer (Administrative modification of PTI 03-16155 (issued 11/02/04)to revised thermal oxidizer temperature)		See section B.III

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record keeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the actual materials (inks, fountain solutions, blanket wash, 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-

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level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: ethylene glycol

TLV (mg/m<sup>3</sup>): 127

Maximum Hourly Emission Rate (lbs/hr): 2.34\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 3.64

MAGLC (ug/m<sup>3</sup>): 3,024

\* assume that all of the emissions are ethylene glycol

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic 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 applying 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

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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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still 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. Where 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.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None